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17
18 UNITED STATES DISTRICT COURT
19 CENTRAL DISTRICT OF CALIFORNIA

18 Kolon Industries, Inc.,
19 Plaintiff,
20 v.
21 Hyosung Advanced Materials Corp.
22 and Hyosung USA, Inc.,
23 Defendants.

CASE NO. 8:24-cv-00415-JVS-JDE
**THIRD AMENDED COMPLAINT
FOR PATENT INFRINGEMENT**

DEMAND FOR JURY TRIAL

24 **REDACTED VERSION OF DOCUMENT**
25 **PROPOSED TO BE FILED UNDER SEAL**
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1 Plaintiff Kolon Industries, Inc. (“Kolon” or “Plaintiff”) for its Third
2 Amended Complaint against defendants Hyosung Advanced Materials Corp.
3 (“Hyosung Advanced Materials”) and Hyosung USA, Inc. (“Hyosung USA”)
4 (collectively, “Hyosung” or “Defendants”) alleges as follows:

5 INTRODUCTION

6 1. Kolon brings this patent infringement action to protect its valuable
7 technology relating to hybrid tire cord (“HTC”) that uses aramid fiber. HTC with
8 aramid fiber is used to reinforce high-performance tires, helping them keep their
9 shape and support vehicle weight. Demand for HTC with aramid fiber is
10 increasing as the popularity of electric vehicles rises. Electric vehicles’ batteries
11 increase vehicle weight and electric engines have high instant torque, requiring the
12 stronger tire construction that HTC with aramid fiber can provide.

13 2. Kolon was founded in 1957 as a pioneer in the chemical fiber
14 industry. Kolon’s success is in large part due to its significant investment in
15 innovation. Kolon has over 2,700 worldwide patents and patent applications,
16 including approximately 350 issued U.S. patents. Kolon began its tire cord
17 operations in the early 1970s. Since the 1970s, Kolon has been researching aramid
18 and applications for aramid, and Kolon launched its aramid fiber business in 2004.
19 Kolon developed HTC using aramid for the first time in South Korea and has been
20 mass-producing and selling aramid and nylon HTCs since 2015.

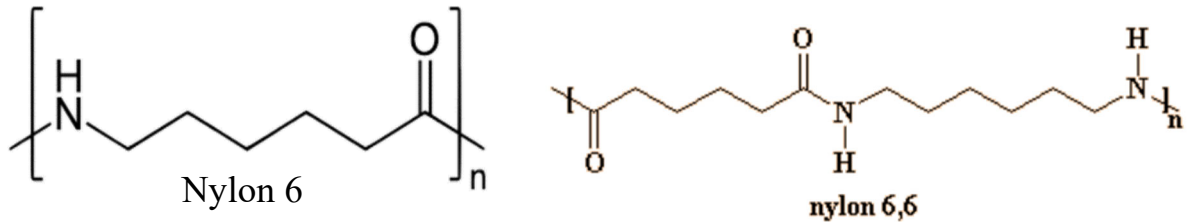
21 3. Kolon and Hyosung have been direct competitors across multiple
22 industries for many years. Hyosung has paid close attention to Kolon’s advances,
23 as reflected in Kolon’s new product introductions and Kolon’s patent filings.
24 Before Kolon’s patented inventions described in the Asserted Patents, two-ply
25 aramid and nylon HTC had not been successfully commercialized. Kolon invented
26 technology to make two-ply aramid and nylon HTC commercially viable, filing for
27 patent protection in the U.S. and elsewhere and then introducing its two-ply aramid
28 and nylon HTC product.

1 4. Years after Kolon, Hyosung started filing its own patent applications
2 directed to two-ply aramid and nylon HTC. By 2018, the Korean Intellectual
3 Property Office identified Kolon’s asserted U.S. Patent No. 9,617,663 to Hyosung.
4 At least by this time, Hyosung would have been monitoring Kolon’s patent filings
5 relating to two-ply aramid and nylon HTC and would have become aware of
6 Kolon’s already issued U.S. Patent No. 9,789,731, and later U.S. Patent
7 No. 10,196,765, which is the continuation of U.S. Patent No. 9,617,663. By 2019,
8 Hyosung began applying for U.S. patents on two-ply aramid and nylon HTC,
9 seeking to protect the U.S. business it intended to pursue. Hyosung abandoned its
10 initial U.S. patent application, after unsuccessfully arguing against the Examiner’s
11 rejections based on Kolon’s own U.S. Patent No. 9,617,663. Hyosung was
12 pursuing the same two-ply aramid and nylon HTC technology that Kolon invented
13 and had already patented.

14 5. Anticipating that Hyosung planned to launch a competing two-ply
15 aramid and nylon HTC product, Kolon sent a letter to Hyosung in February 2021,
16 specifically warning Hyosung not to infringe the Asserted Patents. Despite this
17 warning, Hyosung proceeded with introducing an infringing two-ply aramid and
18 nylon HTC product (the Accused Product described below), copying Kolon’s
19 patented technology. In early 2023, Hyosung announced its Accused Product,
20 which Hyosung continues to promote and sell today.

21 6. Kolon had worked with Hankook Tire & Technology Co., Ltd.
22 (“Hankook”), a South Korean tire manufacturer, to adopt Kolon’s patented two-ply
23 aramid and nylon HTC for use in Hankook tires. Hyosung approached Hankook
24 with its infringing Accused Product, directly competing with Kolon using Kolon’s
25 own patented technology. Hyosung at first began supplying Hankook with its
26 infringing Accused Product for manufacture of tires outside the United States and,
27 more recently, has begun supplying Hankook with its infringing Accused Product
28 for manufacture of tires in the United States.

1 11. Nylon is a family of synthetic polymers with amide backbones,
2 usually linking aliphatic or semi-aromatic groups. Below are the chemical
3 structures of two common types of nylon, nylon 6 and nylon 6,6.



9 12. Nylon is a low-cost, lightweight, heat-resistant, and durable fiber.
10 Nylon is particularly useful as a tire reinforcement because it has superior
11 adhesivity and high compressive stress, and low cost compared to other materials.

12 13. Tire cord is a tire reinforcement that maintains the shape of the tire,
13 prevents deformation, and allows the tire to withstand the stresses of the vehicle's
14 weight and driving. For this reason, tire cord has a significant effect on a tire's
15 performance. Tire manufacturers use tire cords made of varied materials
16 depending on the needs of the specific tire and vehicle.

17 14. HTC is a tire cord made of two or more cord materials. HTC can
18 provide a combination of physical and thermal properties using a single tire cord
19 by combining material properties of multiple cord materials.

20 15. HTC composed of aramid and nylon exploits the advantages of both
21 aramid and nylon to provide the reinforcement required by high-performance tires.
22 This HTC is also particularly suited for use in tires for electric vehicles to provide
23 the reinforcement needed for more wear-resistant and ultra-quiet tires in view of
24 electric vehicles' higher weight, more instant torque, and lower noise output
25 compared to conventional vehicles.

26 16. HTC composed of aramid and nylon yarns is manufactured by taking
27 aramid and nylon yarns that have themselves been twisted (the primary twist) and
28 twisting the yarns together (the secondary twist) to form a multi-ply yarn.

1 Adhesive is applied to this raw HTC to create dip HTC that is suitable, subject to
2 potential additional processing, for use as a tire reinforcement.

3 **THE ASSERTED PATENTS**

4 17. U.S. Patent No. 9,617,663 (“the ’663 patent”) was duly and legally
5 issued on April 11, 2017, by the United States Patent and Trademark Office to
6 inventors Ok Wha Jeon and Min Ho Lee. The ’663 patent is entitled “Hybrid Tire
7 Cord and Method for Manufacturing the Same.” Kolon is the owner by
8 assignment of the ’663 patent. A true and correct copy of the ’663 patent is
9 attached as Exhibit 2.

10 18. U.S. Patent No. 9,789,731 (“the ’731 patent”) was duly and legally
11 issued on October 17, 2017, by the United States Patent and Trademark Office to
12 inventors Min Ho Lee, Ok Wha Jeon, and Il Chung. The ’731 patent is entitled
13 “Hybrid Fiber Cord and Method for Manufacturing the Same.” Kolon is the owner
14 by assignment of the ’731 patent. A true and correct copy of the ’731 patent is
15 attached as Exhibit 3.

16 19. U.S. Patent No. 10,196,765 (“the ’765 patent”) was duly and legally
17 issued on February 5, 2019, by the United States Patent and Trademark Office to
18 inventors Ok Wha Jeon and Min Ho Lee. The ’765 patent is entitled “Hybrid Tire
19 Cord and Method for Manufacturing the Same.” The ’765 patent issued from an
20 application filed as a continuation of the application for the ’663 patent. Kolon is
21 the owner by assignment of the ’765 patent. A true and correct copy of the ’765
22 patent is attached as Exhibit 4.

23 20. Collectively, the ’663 patent, ’731 patent, and ’765 patent comprise
24 the “Asserted Patents.”

25 **BACKGROUND OF KOLON’S PATENTED TECHNOLOGY**

26 21. Kolon invented improved HTC comprised of aramid and nylon, and
27 methods of manufacturing this HTC, through years of research and development.

28 22. Nylon has the disadvantages that it has relatively low strength and

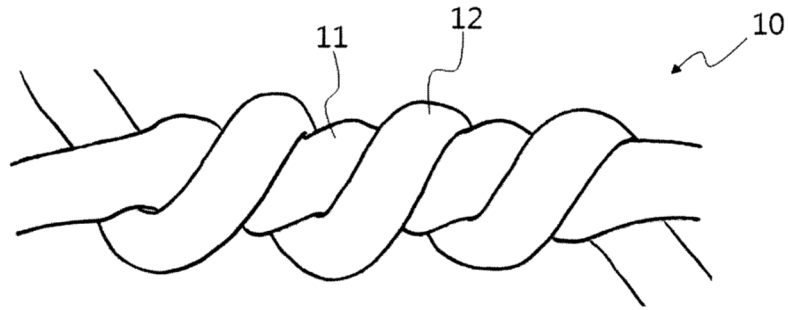
1 shows reduced modulus at high temperature, which limits its performance when
2 driving at high speed and may lead to a flat spot during long-term parking. Aramid
3 has the disadvantages that it is more expensive, its high modulus makes it difficult
4 to expand the tire during tire manufacture, and its elongation at break can be too
5 low to provide sufficient fatigue resistance for long-term durability.

6 23. Use of both aramid and nylon together in a hybrid structure was
7 developed in an effort to address these drawbacks. Before Kolon's inventions, due
8 to the differences in the physical properties of aramid and nylon, the primary twist
9 numbers and twist directions of the aramid and nylon yarns were quite different to
10 try to make the physical properties of nylon more prominent during initial
11 deformation and those of aramid more prominent afterward. Generally, aramid
12 was primarily twisted at a higher twist number than the nylon, and the two were
13 twisted in opposite directions. For example, the aramid was primarily twisted at a
14 higher twist number in the opposite direction of the secondary twist, the nylon was
15 primarily twisted at a lower but still high twist number in the same direction as the
16 secondary twist, and the aramid was twisted around the nylon in the resulting
17 structure.

18 24. The conventional HTC was typically manufactured using ring
19 twisters, which twist each yarn and then twist the yarns together in distinct steps.
20 Using a ring twister involved a three-step process of primarily twisting the aramid
21 yarn, primarily twisting the nylon yarn, and secondarily twisting them together.
22 This manufacturing process had limitations that included low productivity, high
23 variability of physical properties, and high defect rates.

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1 25. HTC comprised of aramid and nylon conventionally had the structure
2 shown in Figure 1 of the '731 patent (copied below), where the aramid primarily-
3 twisted yarn (12) was secondarily twisted around the nylon primarily-twisted yarn
4 (11) to form the ply yarn (10). Ex. 3 at p. 3.



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10 The aramid yarn would form loops during the twisting process, resulting in an
11 unstable structure. When processing the raw HTC having this conventional
12 structure to make dip HTC, the friction between HTC and the guides and rollers
13 would cause non-uniformities in the shape of the HTC, resulting in a defective
14 product. As stated in the '731 patent, “The loop and shape non-uniformity make
15 the properties of the hybrid tire cords non-uniform and cause defective products.”
16 Ex. 3, col. 2, lns. 37-39.

17
18 26. Given the drawbacks associated with conventional aramid and nylon
19 HTC, two-ply conventional HTC was not commercially attractive. Neither Kolon
20 nor Hyosung commercialized such two-ply conventional HTC. Hyosung has not
21 sold such two-ply conventional HTC during the term of the Asserted Patents. For
22 clarity, Hyosung’s product accused of infringing the Asserted Patents is different
23 from the conventional two-ply HTC described above and is identified below.

24 27. Before Kolon’s inventions, rather than two-ply aramid and nylon
25 HTCs, three-ply aramid and nylon HTCs with one ply of nylon and two plies of
26 aramid were used commercially. It was believed that the three plies, with two plies
27 of aramid, were necessary to provide the HTC properties needed for use in high-
28 performance tires. These three-ply HTCs were made using ring twister machines,

1 twisting each yarn individually and then the yarns together in distinct steps where
2 the number of twists and direction of those twists differed. Three-ply aramid and
3 nylon HTCs had a disadvantage of higher cost, relative to two-ply aramid and
4 nylon HTC, due to the use of two plies of aramid.

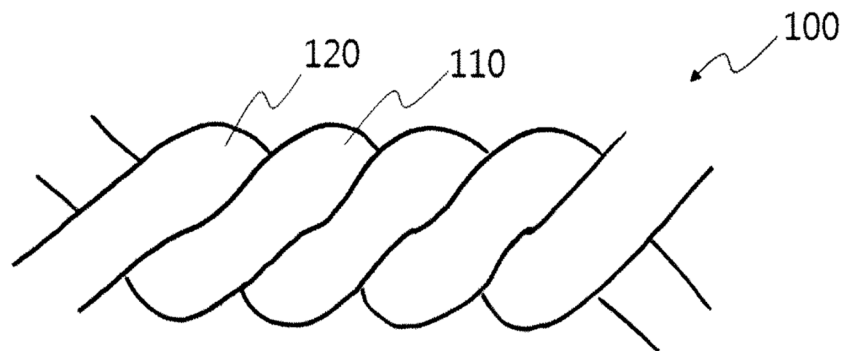
5 28. Prior to the introduction of Kolon's patented technology, tire
6 manufacturers had designs for their own three-ply HTC, and neither Kolon nor
7 Hyosung offered its own three-ply HTC product to the marketplace. Kolon's
8 patented technology enabled Kolon to introduce its own two-ply aramid and nylon
9 HTC product, and Hyosung followed Kolon in introducing its own two-ply aramid
10 and nylon HTC product to compete directly against Kolon using Kolon's patented
11 technology, after issuance of Kolon's Asserted Patents.

12 29. Kolon invented HTC comprised of aramid and nylon, and methods of
13 manufacturing this HTC, that overcame the limitations and drawbacks described
14 above associated with conventional aramid and nylon HTC and its manufacture.
15 Kolon developed manufacturing methods that can be used to make HTC more
16 easily and that yields HTC with more uniform physical properties, better strength,
17 and improved fatigue resistance suitable for high-performance tires.

18 30. In the manufacturing methods Kolon invented, the nylon filament, the
19 aramid filament, and the nylon and aramid together are twisted at the same twists
20 per meter (TPM). This method of manufacturing an aramid and nylon HTC can be
21 implemented using a device that performs the primary and secondary twisting
22 processes simultaneously, such as a direct corder or cable corder, and provides
23 advantages of fewer defects and more stable overall structure that provides better
24 uniformity of properties, and thus better yield. Kolon's inventions made two-ply
25 aramid and nylon HTC commercially attractive for the first time.

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1 31. Kolon invented two-ply HTC consisting of one ply of primarily-
2 twisted aramid yarn and one ply of primarily-twisted nylon yarn that combines the
3 advantages of aramid and nylon and provides high adhesiveness, heat resistance,
4 and fatigue resistance. The structure of this two-ply HTC (100) where the
5 primarily-twisted nylon yarn (110) and the primarily-twisted aramid yarn (120) are
6 secondarily twisted together using the same TPM as for the primary twisting is
7 shown in Figure 2 of the '731 patent (copied below). Ex. 3 at p. 3.



14 32. Kolon invented an improved two-ply aramid and nylon HTC having
15 the structure shown above where the aramid primarily twisted yarn is 1.005 to
16 1.025 times the length of the nylon primarily twisted yarn (when the secondary
17 twisting of the HTC is removed by untwisting). In the manufacturing process, this
18 difference in length can be achieved at least in part by applying higher tension to
19 the nylon filament than to the aramid filament during the twisting process. This
20 aramid primarily twisted yarn has a 0.1 to 5% lower twist number than the twist
21 number of the nylon primarily twisted yarn, after manufacture of the HTC and
22 untwisting. For a given length of secondarily twisted yarn, the number of twists of
23 the aramid primarily twisted yarn is slightly lower than the number of twists of the
24 nylon primarily twisted yarn because, even though the same twist number was used
25 during manufacture, in a given time period a slightly longer length of aramid yarn
26 was subject to this twist number than length of nylon yarn.

27 33. Kolon's improved two-ply aramid and nylon HTC is suitable for tire
28 manufacture and disperses the stress applied to the HTC during the repeated

1 tension/compression of the tire. This HTC has superior fatigue resistance, which
2 maintains stability of tires under the repeated application of forces while driving.

3 34. Kolon's patented two-ply aramid and nylon HTC can be more easily
4 manufactured, has more uniform physical properties, and improved strength and
5 fatigue resistance. Using Kolon's patented two-ply HTC made of one ply of
6 aramid and one ply of nylon, Kolon achieved comparable performance to three-ply
7 HTC made of two plies of aramid and one ply of nylon.

8 35. Kolon's patented methods of manufacturing two-ply aramid and nylon
9 HTC creates HTC with superior and more uniform properties in addition to
10 achieving improved manufacturing efficiencies. Specifically, Kolon's patented
11 methods create two-ply aramid and nylon HTC with superior strength retention
12 rate, strength maintenance percentage, dry heat shrinkage, breaking tenacity,
13 strength at break, elongation at break, and load at specific elongation (LASE).
14 Kolon pioneered this two-ply aramid and nylon HTC product, and tire
15 manufacturers decided to adopt this product for use in their tires, setting
16 specifications that reflect the improved properties achieved using Kolon's patented
17 technology. These superior properties of Kolon's product meet and exceed the
18 HTC requirements of tire manufacturers and therefore mean that Kolon's patented
19 HTC has properties necessary for commercial sales to tire manufacturers for use in
20 vehicles sold around the world, including in the United States. Kolon also
21 discovered the ideal weight ratio range of aramid to nylon to achieve these superior
22 properties.

23 36. Kolon has developed high strength and high endurance (fatigue
24 resistant) IE-grade aramid for mechanical rubber good (MRG) applications with
25 improved elongation (IE) that is suitable for HTC. The high elongation and
26 modulus control enables the product to provide outstanding strength retention and
27 physical properties to the tires.

28 37. Kolon invested significantly in aramid manufacturing improvements,

1 including by creating a task force of employees to specifically work on aramid
2 manufacturing improvements. This task force improved many aspects of Kolon's
3 aramid manufacturing process.

4 **HYOSUNG'S INFRINGEMENT**

5 38. Hyosung is in the business of manufacturing, offering for sale, selling,
6 and/or importing into the United States infringing two-ply aramid and nylon HTC
7 composed of one ply of aramid and one ply of nylon. Hyosung has had a single
8 infringing two-ply aramid and nylon HTC product. Hyosung competes directly
9 against Kolon with this infringing product.

10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]

21 40. A picture of Hyosung's infringing two-ply aramid and nylon HTC
22 composed of one ply of aramid and one ply of nylon (the "Accused Product") is
23 shown below in Picture 1. For clarity, the product depicted below in Picture 1 is in
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1 fact a picture of Hyosung’s allegedly infringing HTC product.
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11 **Picture 1**

12 41. The product shown above in Picture 1 originated from Hyosung. This
13 product was made, used, sold, offered for sale, or imported into the United States
14 after the Asserted Patents issued.

15 42. The Hyosung entities work together to manufacture the Accused
16 Product and offer for sale, and/or sell, import, or otherwise provide the Accused
17 Product in the United States. The Accused Product is also incorporated into tires
18 bound for and ultimately sold in the United States, including specifically in this
19 judicial district, such as tires manufactured by Hankook. In addition, as of earlier
20 this year, the Accused Product has been shipped by Hyosung Advanced Materials
21 to Hyosung USA for use in tires made in the United States, at least by Hankook at
22 its tire manufacturing facility in Tennessee. Hyosung’s activities with respect to
23 the Accused Product that directly and indirectly infringe the Asserted Patents are
24 described further below.

25 43. In March 2023, the Korean press reported that, “[i]n response to the
26 growing demand for tires for electric vehicles,” Hyosung Advanced Materials was
27 “developing and supplying high-strength cords that allow tire cords to be thinner
28 and reduce the thickness of cords and rubber and thick-denier cords that reduce the

1 weight of tires by using only one tire cord.”

2 <https://www.businesskorea.co.kr/news/articleView.html?idxno=111587> (accessed
3 21 Feb 2024). This is a description of the benefits of the Accused Product.

4 44. In April 2023, Hyosung announced that it “has introduced
5 advanced **high-strength tirecords** on the combination of cap plies and aramid
6 fiber.” <https://brand.hyosung.com/en/brand-now/journalism/1194> (Hyosung’s
7 emphasis) (accessed 21 Feb 2024). This is a description of the Accused Product,
8 which is used in cap plies. Hyosung introduced its Accused Product to compete
9 directly against Kolon for sales to tire manufacturers, such as Hankook.

10 45. Hyosung Advanced Materials advertises the Accused Product as
11 “Aramid & Hybrid Tirecord” and touts the Accused Product as “designed to
12 maximize the advantages of each material” that is “primarily used in premium tires
13 that require high performance.”

14 <https://www.hyosungadvancedmaterials.com/en/business/tire> (accessed 21 Feb
15 2024). Hyosung USA similarly advertises “tire reinforcements,” which include the
16 Accused Product, and “aramid” as part of the “Advanced Materials” business area.
17 <https://www.hyosungusa.com/> (accessed 21 Feb 2024). Hyosung USA states that
18 its “[a]ramid yarn is used for . . . tire reinforcement” in the Accused Product.
19 https://www.hyosungusa.com/business/yarn_aramid (accessed 28 May 2024).

20 46. Hyosung Advanced Materials has acquired direct corders or cable
21 corders and manufactures the Accused Product using them, conducting the primary
22 and secondary twisting of the aramid and nylon yarns at the same time. Hyosung
23 Advanced Materials disclosed the use of a direct corder or cable corder (called a
24 “direct cabler”) in its patent applications.

25 47. Kolon had disclosed use of a cable corder for conducting both primary
26 and secondary twisting simultaneously years earlier in its ’663 patent, which first
27 published in December 2016 and issued in April 2017. For example, in Example 1
28 of the ’663 Patent, Kolon stated: “A nylon filament yarn having a fineness of 1,260

1 denier and an aramid filament yarn having a fineness of 1,500 denier were
2 introduced into a cable cord twister and Z-direction of primary twisting and S-
3 direction of secondary twisting were simultaneously conducted to produce a 2-ply
4 yarn.” Kolon’s ’765 patent, which shares a specification with the ’663 patent,
5 includes the same Example 1. Kolon’s ’731 patent similarly describes, in its
6 Example 1, using a cable corder to perform primary and secondary twisting of
7 1,500 denier (De’) aramid yarn and 1,260 De’ nylon yarn simultaneously: “The
8 primary twisting and secondary twisting were performed simultaneously with a
9 nylon filament of 1260 De’ and an aramid filament of 1500 De’ by means of the
10 Cable Corder twister to produce a hybrid ply yarn.”

11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]

20 49. With knowledge of the Asserted Patents and intent to infringe them,
21 Hyosung makes the Accused Product and offers to sell, and/or sells in the United
22 States, and/or imports the Accused Product into the United States.

23 50. On information and belief, Hyosung has entered into agreements to
24 sell the Accused Product to tire manufacturers, such as Hankook, knowing that
25 tires with the Accused Product would be imported into the United States and/or
26 made, offered for sale or sold in the United States.

27 51. On information and belief, tires made with the Accused Product and
28 vehicles having tires made with the Accused Product are offered for sale and sold

1 in the United States, including in this judicial district.

2 52. On information and belief, tire manufacturers have imported tires with
3 the Accused Product into the United States, including into this judicial district, and
4 offer to sell and/or sell tires with the Accused Product in the United States,
5 including in this judicial district.

6 53. Hankook's tire specifications specifically require two-ply aramid and
7 nylon HTC. The aramid and nylon HTC that Hyosung supplies to Hankook and
8 that is imported into the United States for Hankook is two-ply aramid and nylon
9 HTC—the Accused Product.

10 54. Hyosung manufactures the Accused Product to comply with
11 specifications from tire manufacturer(s) that require the Accused Product to meet
12 certain physical property requirements, including physical properties found in the
13 claims of the Asserted Patents. Hankook's specifications have requirements for
14 physical properties such as breaking force, elongation at break, elongation at
15 specific load, heat shrinkage, and post-manufactured twist number that must be
16 met. Specifications like Hankook's require specific properties or ranges of
17 properties that fall within the limitations of the Asserted Patents. Hyosung has met
18 these physical property requirements with its Accused Product by using Kolon's
19 patented technology. Hyosung has had to commercially satisfy those
20 specifications and could not feasibly have done so without manufacturing the
21 Accused Product using Kolon's patented technology.

22 55. With knowledge of the Asserted Patents and intent to infringe them,
23 Hyosung offers to sell and sells the Accused Product to tire manufacturers, and the
24 Accused Product meets the tire manufacturers' specifications. Tire manufacturers
25 have strict specification requirements because they need to meet tire performance
26 requirements of their customers and guarantee tire safety. Their vehicle
27 manufacturing customers approve being supplied tires that meet these strict
28 specification requirements, making these specifications inflexible and giving tire

1 manufacturers additional reason to require strict adherence to their specifications
2 by their suppliers. Those specifications reflect the improved properties Kolon
3 achieved with its patented technology, and Hyosung has used Kolon’s patented
4 technology to meet those specifications with its competing Accused Product.

5 56. Hyosung meets these specifications with the Accused Product and
6 does so with knowledge that the Accused Product will be inserted into tires that
7 will be offered for sale, sold, and/or imported into the United States—including in
8 this judicial district. Hyosung thus offers to sell and sells the Accused Product to
9 tire manufacturers with knowledge and intent that the tire manufacturers’ acts
10 infringe the Asserted Patents.

11 57. On information and belief, Hyosung’s tire manufacturing partners and
12 vehicle manufacturers who then purchase those tires infringe the Asserted Patents
13 by using the Accused Product in their tires that they import into the U.S. (as tires
14 themselves or as tires on vehicles), offer for sale, and/or sell in the U.S.—including
15 into this district. Hyosung knows and intends that a portion of the Accused
16 Product it sells to tire manufacturers will infringe the Asserted Patents when
17 imported into the U.S. and/or offered for sale or sold in the U.S. by tire
18 manufacturing partners and vehicle manufacturers. The United States is a major
19 market for tires containing the two-ply aramid and nylon HTC Kolon developed,
20 and Hyosung knows and intends that its Accused Products will be imported,
21 offered for sale, and sold in the U.S.

22 58. Hyosung has sold the Accused Product to tire manufacturers,
23 including tire manufacturers that make and sell tires in the United States. For
24 example, Hyosung sells the Accused Product to Hankook. Hankook has tire
25 manufacturing plants around the world, including in the United States.

26 59. Kolon has been supplying its own two-ply aramid and nylon HTC to
27 Hankook, and Hyosung has started supplying its Accused Product to Hankook in
28 direct competition with Kolon. Hyosung has been selling the Accused Product to

1 Hankook for use in Hankook’s tire manufacturing facilities in Korea and has been
2 shipping the Accused Product to Hungary for use in Hankook’s tire manufacturing
3 facilities in Hungary. More recently, Kolon and Hyosung competed to supply
4 Hankook with two-ply aramid and nylon HTC for use at its U.S. tire manufacturing
5 facility.

6 60. Tire manufacturers evaluate samples of tire cord as part of their
7 qualification process.

8 61. Hankook has a U.S. tire manufacturing facility located in Tennessee.
9 Hankook requires its suppliers to send samples to the U.S. to qualify the product
10 for use at Hankook’s U.S. tire manufacturing facility. Kolon communicated with
11 Hankook about providing samples of its own two-ply aramid and nylon HTC to the
12 United States for Hankook to qualify it for use at Hankook’s U.S. tire
13 manufacturing facility. Those communications about Kolon supplying HTC
14 samples to Hankook in the United States ended when Hankook informed Kolon
15 that Hankook selected Hyosung to supply the two-ply aramid and nylon HTC—the
16 Accused Product.

17 62. Hyosung was required to import samples of the Accused Product into
18 the United States for qualification by Hankook.

19 63. Accordingly, in view of Hankook’s selection of Hyosung to supply
20 HTC product for Hankook’s U.S. tire manufacturing facility, Hyosung imported
21 samples of the Accused Product into the United States.

22 64. In 2024, Hyosung has imported the Accused Product into the U.S. and
23 has supplied this Accused Product to Hankook for use by Hankook in the U.S. In
24 particular, Hyosung Advanced Materials has shipped the Accused Product to
25 Hyosung USA and, on information and belief, Hyosung USA has supplied this
26 Accused Product to Hankook. Hankook has begun making tires in the United
27 States, at its tire manufacturing facility in Tennessee, that include the Accused
28 Product. Thus, in addition to directly infringing the Asserted Patents, Hyosung

1 Advanced Materials has induced Hyosung USA to infringe by selling, offering to
2 sell, and/or supplying the Accused Product to Hankook. Further, in addition to
3 Hyosung Advanced Materials' inducement of infringement of the Asserted Patents
4 outside the United States, Hyosung USA has induced Hankook's infringement in
5 the United States.

6 65. Hyosung has also approached Kumho Tire about supplying HTC for
7 use at Kumho's U.S. tire manufacturing plant. On information and belief,
8 Hyosung has imported samples of the Accused Product into the United States to
9 promote the Accused Product to other tire manufacturers, in addition to supplying
10 samples to Hankook in the United States.

11 66. Hyosung's tire manufacturing partners, such as Hankook, integrate the
12 Accused Product into their tires bound for, and that Hankook offers for sale and
13 sells in, the United States. For example, on information and belief, Hankook's
14 high performance Ventus S1 evo Z AS X tire, which Hankook advertises includes
15 "Aramid Hybrid Reinforcement"
16 (<https://www.hankooktire.com/us/en/tire/ventus/s1evozasx.html> (accessed 21 Feb
17 2024)), incorporates the Accused Product. Hankook's Ventus S1 evo Z AS X tire
18 is offered for sale and sold in the United States, including in this judicial district.
19 Hankook identifies those tires as being manufactured in Korea, which is one of the
20 locations where Hyosung has supplied the Accused Product to Hankook.

21 67. Hyosung sells the Accused Product to tire manufacturers for tires to
22 be used for electric vehicles. For example, on information and belief, Hankook
23 integrates the Accused Product into tires for electric vehicles bound for, and that
24 Hankook offers for sale and sells in, the United States. For example, on
25 information and belief, Hankook's Ion evo tire for electric vehicles, which
26 Hankook advertises includes "Aramid Hybrid Reinforcement"
27 (<https://www.hankooktire.com/us/en/tire/ion/evo.html> (accessed 21 Feb 2024)),
28 incorporates the Accused Product. Hankook's Ion evo tire is imported into,

1 offered for sale, and sold in the United States, including in this judicial district.
2 Hankook identifies those tires as being manufactured in Hungary and Korea, which
3 are both locations where Hyosung has supplied the Accused Product to Hankook.

4 68. On information and belief, Hyosung's tire manufacturing partners
5 have sold tires with the Accused Product to vehicle manufacturers that have
6 imported vehicles having tires with the Accused Product into the United States,
7 including into this judicial district, and offer to sell and/or sell tires with the
8 Accused Product, including in this judicial district. For example, on information
9 and belief, Hyundai and Kia automobiles, including, e.g., the 2024 Kia EV9 and
10 2024 Hyundai Ioniq 6, are equipped with Hankook tires that include the Accused
11 Product. The 2024 Kia EV9 and 2024 Hyundai Ioniq 6 are offered for sale and
12 sold in the United States, including in this judicial district.

13 69. Hyosung knows and intends that the Accused Product it sells to tire
14 manufacturing partners will be integrated into tires, e.g., Hankook tires, imported
15 into, offered for sale, and sold in the United States. The United States is a major
16 market for tire manufacturers, such as Hankook, and is one of the largest markets
17 for electric vehicles, such as Kia EV9 and Hyundai Ioniq 6. Thus, Hyosung
18 encourages, instructs, enables, and otherwise causes infringement of the Accused
19 Products in the United States.

20 70. On information and belief, Hyosung gathers information about its
21 customers, such as Hankook, including information relating to its customers'
22 market share, countries in which its customers maintain manufacturing plants, and
23 countries and markets in which its customers sell tires to support its sales efforts.
24 For example, knowing that there is substantial demand for tires having the Accused
25 Product in the United States supports directing efforts toward supplying Hankook's
26 U.S. tire manufacturing facility, knowing that Hankook would want to pursue
27 production of tires including the Accused Product in the U.S.

28 71. On information and belief, besides conducting infringing activities

1 with respect to the Accused Product, with knowledge of the Asserted Patents,
2 Hyosung also intentionally makes aramid designed for use in the Accused Product
3 and imports into the United States, offers to sell and/or sells in the United States
4 aramid designed for use in the Accused Product into the United States.

5 72. In a Hyosung YouTube video, Hyosung admits that it manufactures
6 its aramid fiber, which Hyosung sells under the tradename ALKEX[®], in South
7 Korea. <https://www.youtube.com/watch?v=eqMrhZD2Vro&t=1s> (accessed 20 Feb
8 2024). For clarity, ALKEX[®] is not HTC or a brand name specific to aramid yarn
9 for use in HTC—it is instead a brand name for a broad range of Hyosung aramid
10 yarn that Hyosung has offered over the years in the form of filament yarn on a
11 spool. Hyosung has manufactured aramid under the ALKEX[®] brand that has had
12 different properties. As its aramid manufacturing has improved, it has designed
13 aramid to have different properties for different uses.

14 73. Today, Hyosung specifically designs certain aramid yarn for use in
15 the Accused Product. In particular, Hyosung manufactures aramid with improved
16 elongation, copying Kolon’s proprietary IE-grade aramid, for use in the Accused
17 Product. Hyosung Advanced Materials’ “Aramid yarn catalog,” marked with the
18 ALKEX[®] brand, shows a picture of aramid yarn being used in tire cord:



Tire Cord

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27 <https://www.hyosungadvancedmaterials.com/resources/en/assets/downloads/%EC>
28 [%95%84%EB%9D%BC%EB%AF%B8%EB%93%9C%20%EB%B8%8C%EB%](https://www.hyosungadvancedmaterials.com/resources/en/assets/downloads/%EC)

1 A1%9C%EC%85%94.pdf (accessed 20 Aug 2024).

2 74. Hyosung Advanced Materials also markets its ALKEX[®] aramid
3 products, including aramid designed for use in the Accused Product, at trade shows
4 around the world including, on information and belief, in the United States. In a
5 Hyosung YouTube video (<https://www.youtube.com/watch?v=sVVACiFvFe4>
6 (accessed 20 Feb 2024) (screenshot below)), Hyosung admits importing aramid
7 into the United States.



19 75. Importation records (attached as Exhibit 1) show that Hyosung has
20 imported the Accused Product and/or aramid fiber and nylon fiber for use in the
21 Accused Product into the United States, including into this judicial district. For
22 example, as shown in the importation records, Hyosung Advanced Materials
23 Corporation sent “aramid filament yarn” for “tirecord use” to Hyosung USA, Inc.

24 76. These importation records reflect data that a vendor is able to provide
25 and are not believed to capture every importation in which Hyosung has been
26 involved. For example, the import records do not include air cargo and therefore
27 would not include, e.g., samples of the Accused Product shipped by air to the U.S.
28 The import records also are limited to identifying the recipient and shipper. To the

1 extent Hyosung contracted with a third-party shipper to ship its product to a non-
2 Hyosung entity in the United States, e.g., Hankook, that would not be captured in
3 the importation records. The import records attached as Exhibit 1 also do not
4 include data for 2024.

5 77. To the extent that this import record is interpreted as showing
6 importation of “aramid filament” as opposed to HTC, it specifically shows
7 importation of “aramid filament yarn” for “tirecord use,” because it shows
8 importation into the United States of a component of the Accused Product.

9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]

16 79. This importation has included importation through Los Angeles from
17 Hyosung Advanced Materials, including by its predecessor-in-interest Hyosung
18 Corporation, which transitioned its advanced materials department into the
19 affiliated company Hyosung Advanced Materials.

20 http://www.hyosung.cn/downloads/brochure/2023_Hyosung_Profile_E.pdf (In
21 Hyosung’s 2023-24 profile, Hyosung reports that “Hyosung has completed its
22 conversion into a holding company system, and restructured its departments into
23 the affiliated companies of Hyosung TNC, Hyosung Heavy Industries, Hyosung
24 Advanced Materials and Hyosung Chemical, which are overseen by Hyosung
25 Corporation.”).

26 80. Hyosung offers aramid yarn and tire reinforcements, which include
27 the Accused Product, for sale in the United States, including in this judicial district.
28 For example, Hyosung’s website provides an inquiry sheet for aramid yarn and tire

1 reinforcements, including the Accused Product, accessible in the United States
2 <https://www.hyosungadvancedmaterials.com/en/customer/inquiry> (accessed 21 Feb
3 2024). Additionally, for example, Hyosung USA provides contact information for
4 purchasing aramid and tire reinforcement products, including the Accused Product,
5 on its website. Hyosung thus offers these products, including the Accused Product,
6 for sale in the United States and, on information and belief, customers contact
7 Hyosung to purchase these products, including the Accused Product, in the United
8 States.

9 81. Hyosung also offers to sell aramid and tire reinforcements, including
10 the Accused Product, through its product manuals and catalogs available in the
11 United States. Hyosung has also offered for sale in the United States aramid for
12 use in the Accused Product.

13 82. In 2021, Hyosung sought to expand its aramid manufacturing
14 capabilities. Hyosung stated that to meet an increase in demand, it would increase
15 its production capacity to 3,700 tons per year as of 2021. This represents a
16 threefold increase in production from 2020 to 2021. On information and belief, a
17 driver in demand for Hyosung's expanded aramid manufacturing capabilities was
18 production of the Accused Product.

19 83. On information and belief, by improving its aramid manufacturing,
20 Hyosung has been able to meet the specifications of tire manufacturers, such as
21 Hankook, and grow its presence in the market for the Accused Product.

22 84. To help Hyosung expand its aramid manufacturing capabilities,
23 Hyosung approached employees and ex-employees of Kolon to recruit them. One
24 of the individuals that Hyosung approached was In-Sik Han. Mr. Han was
25 employed by Kolon for over thirty years, from 1984 to 2015. During this time, Mr.
26 Han held significant leadership positions at Kolon. For example, Mr. Han held
27 major positions related to research and development of aramid fiber for more than
28 ten years during his time at Kolon.

1 85. While at Kolon, Mr. Han was involved in developing and improving
2 Kolon's aramid production, aramid properties, and HTC products, including
3 involvement in a task force responsible for advancements in Kolon's aramid
4 manufacturing process. Mr. Han is named as an inventor on Kolon patents related
5 to aramid and to aramid and nylon HTC. On information and belief, Mr. Han
6 knew about Kolon's intellectual property, including its patent portfolio. On
7 information and belief, Mr. Han has been aware of the Asserted Patents, and
8 Hyosung knew of Kolon's patented HTC technology and the Asserted Patents
9 through Mr. Han.

10 86. Hyosung hired Mr. Han and, on information and belief, promoted Mr.
11 Han to lead Hyosung's aramid manufacturing. On information and belief,
12 Hyosung hired Mr. Han despite knowing that Mr. Han had been charged in the
13 United States with conspiring to steal DuPont trade secrets relating to aramid
14 technology (and, on information and belief, remains under indictment). Kolon had
15 resolved this matter with respect to Kolon and terminated Mr. Han's employment
16 at Kolon in 2015.

17 **HYOSUNG'S KNOWLEDGE OF INFRINGEMENT**

18 87. Hyosung's infringement has been willful, egregious infringement with
19 knowledge of the Asserted Patents and intent to infringe them by offering the
20 Accused Product.

21 88. Hyosung has had actual knowledge of the Asserted Patents at least
22 since February 4, 2021, when Kolon specifically identified those patents to
23 Hyosung Advanced Materials in a letter, attached as Exhibit 5, informing Hyosung
24 that Kolon had succeeded in researching and developing unique HTC and that
25 Hyosung must respect Kolon's patent rights relating to HTC.

26 89. In this letter, Kolon expressly informed Hyosung that it was
27 prohibited from manufacturing tire cord in ways that infringe the Asserted Patents.
28 The Asserted Patents were the only three U.S. patents identified in the letter.

1 Kolon stated, “we would like to clearly notify you that manufacturing tire cords in
2 ways which infringe upon our company’s patents is strictly prohibited” and that
3 Kolon would seek all available legal remedies “in case of your company’s
4 infringement or impending infringement of our company’s patent rights.”
5 Hyosung Advanced Materials acknowledged receipt of that letter through its
6 March 10, 2021 response.

7 90. After receiving Kolon’s 2021 letter warning Hyosung not to make
8 infringing tire cord, Hyosung announced in April 2023 that it was introducing the
9 Accused Product (<https://brand.hyosung.com/en/brand-now/journalism/1194>
10 (Hyosung’s emphasis) (accessed 21 Feb 2024)). In pursuing introduction of the
11 Accused Product, Hyosung knew it would infringe the Asserted Patents. For
12 clarity, this is not a situation where Hyosung introduced a wide range of products
13 and lacked information to determine which of them infringe the Asserted Patents
14 identified in Kolon’s letter. Hyosung Advanced Materials introduced a single
15 infringing product—the Accused Product—after Kolon specifically warned
16 Hyosung Advanced Materials not to infringe the Asserted Patents. Hyosung
17 Advanced Materials could not have viewed Kolon’s letter as a charge of
18 infringement for any other product other than the Accused Product it introduced
19 after receiving Kolon’s letter.

20 91. Hyosung copied Kolon’s patented technology, after being expressly
21 warned against doing so, which is egregious behavior.

22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

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[REDACTED]

93. On information and belief, Hyosung Advanced Materials informed Hyosung USA about the Asserted Patents and that Kolon would take legal action against infringement of them because these U.S. patents relate to Hyosung USA's ability to offer for sale and sell the Accused Product as Hyosung Advanced Materials' U.S. arm for tire cord operations. Hyosung USA, therefore, on information and belief, knew of the Asserted Patents and that it needed to avoid infringing the Asserted Patents. At the very least, Hyosung USA was willfully blind to the Asserted Patents to the extent Hyosung USA was not informed of the Asserted Patents, despite Kolon's infringement warning to Hyosung Advanced Materials, which offers the Accused Product for sale in the U.S. through Hyosung USA.

94. Hyosung Advanced Materials has taken additional actions that show its awareness of Kolon's patent rights and, on information and belief, show its knowledge that it was infringing Kolon's patent rights. Rather than discontinue its activities relating to the Accused Product, Hyosung Advanced Materials unsuccessfully attempted to challenge the validity of Korean Patent Number 1580352, the Korean counterpart patent to the asserted '731 patent. Hyosung Advanced Materials was intimately familiar with the contents of the '731 patent, as reflected in its foreign counterpart, and had been warned by Kolon not to infringe the '731 patent. On March 21, 2024, the Korean Patent Trial and Appeal Board rejected Hyosung Advanced Materials' attempt to invalidate Korean Patent Number 1580352 and found that the claims of that patent were valid.

95. Hyosung Advanced Materials' filing of its own U.S. patents relating to HTC was an action to protect the business with respect to the Accused Product that Hyosung does in the United States.

1 96. Hyosung Advanced Materials has been aware of the Asserted Patents,
2 specifically including the '663 patent, through its prosecution of patent
3 applications related to HTC filed after Kolon filed applications for the Asserted
4 Patents. Hyosung Advanced Materials filed U.S. Patent Application
5 Nos. 16/464,350 ("350 application") and 18/101,117 ("117 application") directed
6 to HTC and methods of manufacturing HTC. The '350 application published as
7 U.S. Published Application No. 20210114414A1 ("414 published application")
8 and the '117 application published as U.S. Published Application
9 No. 20230219372A1 ("372 published application").

10 97. During prosecution of the '350 application, Hyosung disclosed
11 Kolon's '663 patent and its Korean counterpart patent KR 10-1602605 on May 30,
12 2019. In a related PCT application, Hyosung received an international search
13 report from the Korean Intellectual Property Office that listed the identity of the
14 '663 patent and its Korean counterpart patent on March 6, 2018. Thus, Hyosung
15 was aware of the '663 patent as of at least March 6, 2018. Hyosung knew about
16 the '663 patent years before Kolon sent its letter on February 4, 2021, expressly
17 notifying Hyosung about the patent-in-suit. On information and belief, having
18 been informed of Kolon's '663 patent in 2018, Hyosung was monitoring Kolon's
19 patent portfolio because Hyosung is a direct competitor of Kolon and follows
20 Kolon's advancements, and thus was equally aware of the other Asserted Patents.

21 98. During prosecution of both of Hyosung's patent applications, the
22 Examiner raised Kolon's '663 patent against the patent claims that Hyosung
23 Advanced Materials sought to obtain. In the '350 application, after Hyosung
24 unsuccessfully argued against the Examiner's rejections of the claims Hyosung
25 sought to obtain on HTC—including a rejection based on Kolon's '663 patent and
26 another reference—Hyosung abandoned the application. Hyosung was pursuing
27 the same two-ply aramid and nylon HTC technology that Kolon invented and
28 already had patented.

1 99. Hyosung addressed Kolon’s ’663 patent in detail in arguing against
2 rejections based on the ’663 patent during prosecution of the ’350 and ’117
3 applications. For example, in December 2022 during prosecution of the ’350
4 application, the Examiner specifically rejected Hyosung’s argument that the ’663
5 patent did not disclose that the length of the nylon yarn is shorter than the aramid
6 yarn, pointing out that the ’663 patent teaches the aramid yarn is 1.005 to 1.025
7 times longer than the nylon yarn, which is claimed in claim 1 of the ’663 patent.
8 At this time, Hyosung knew it was working toward introducing the Accused
9 Product, which meets this requirement. Hyosung knew that its Accused Product
10 would infringe and chose to proceed with introducing its Accused Product despite
11 this knowledge, deciding to willfully infringe the Asserted Patents rather than
12 respect Kolon’s patent rights.

13 100. During prosecution of the ’117 application, Hyosung convinced the
14 Examiner to allow its claims to a method of manufacturing HTC over the ’663
15 patent, based on arguments about the ’663 patent’s disclosure. Hyosung’s
16 prosecution of its ’350 and ’117 applications shows that Hyosung had full
17 knowledge of the ’663 patent’s teachings, and Hyosung necessarily also had full
18 knowledge of the ’765 patent’s teachings because it shares the same specification
19 as the ’663 patent.

20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]

27 102. On February 28, 2024, Kolon filed its original complaint in this
28 action. That complaint was served on Hyosung USA, Inc. on March 1, 2024, and

1 was served on Hyosung Advanced Materials Corp. on March 27, 2024. Hyosung
2 has known about the Asserted Patents and Kolon's assertion of infringement since
3 shortly after Kolon filed its original complaint. At the very least, Hyosung has
4 known about Kolon's charge of infringement of the Asserted Patents since it
5 received a copy of the original complaint.

6 103. On June 3, 2024, Kolon filed and served its first amended complaint
7 in this action.

8 104. On August 9, 2024, Kolon filed and served its second amended
9 complaint in this action.

10 105. Kolon's amended complaints provided Hyosung with additional detail
11 about Kolon's charge of infringement of the Asserted Patents by the Accused
12 Product. Each of these complaints has put Hyosung on notice of its infringement
13 of the Asserted Patents by its Accused Product. Hyosung nevertheless decided to
14 continue infringing the Asserted Patents. Indeed, Hyosung Advanced Materials
15 has made multiple shipments of the Accused Product to Hyosung USA after this
16 action was filed. Hyosung's infringement has been willful.

17 106. On September 9, 2024, Kolon served its Disclosure of Asserted
18 Claims and Infringement Contentions. In the disclosure, Kolon specifically
19 identified the Accused Product, and included the same picture of the Accused
20 Product that Kolon has included in its amended complaints. Kolon also included
21 infringement charts identifying specifically where and how each limitation of each
22 asserted claim is found within the Accused Product. Kolon's Disclosure of
23 Asserted Claims and Infringement Contentions provided Hyosung with additional
24 notice of infringement of the Asserted Patents by its Accused Product.

25 107. Furthermore, on October 2, 2024, Kolon sent another letter to each of
26 Hyosung Advanced Materials and Hyosung USA accusing them of infringing the
27 Asserted Patents. Exhibit 6 (Kolon letter to Hyosung Advanced Materials),
28 Exhibit 7 (Kolon letter to Hyosung USA). Kolon sent the letters to each of

1 Hyosung Advanced Materials and Hyosung USA directly, and Kolon’s counsel
2 provided courtesy copies to their counsel the same day. Kolon also provided
3 Hyosung Advanced Materials with a Korean translation of its letter. The letters
4 communicated a charge of infringement of the Asserted Patents by the Accused
5 Product. In the letters, Kolon took the “further opportunity to inform” Hyosung
6 Advanced Materials and Hyosung USA “of the product that infringes” Kolon’s
7 Asserted Patents. Kolon specifically identified the Accused Product in the letter,
8 including the same picture of the Accused Product that Kolon has included in its
9 amended complaints and in its Disclosure of Asserted Claims and Infringement
10 Contentions. Kolon attached to the letters its Second Amended Complaint, which
11 further details Hyosung’s infringement of the Asserted Patents.

12 108. Hyosung Advanced Materials and Hyosung USA have read and
13 reviewed Kolon’s October 2, 2024 letters. They have had more than a week to do
14 so.

15 109. Hyosung Advanced Materials and Hyosung USA have not taken any
16 action to inform Kolon that they will cease their infringement or offered to take a
17 license. Hyosung Advanced Materials and Hyosung USA have chosen to continue
18 engaging in their infringing conduct, even after receiving Kolon’s February 2021
19 letter, Kolon’s complaints in this action, Kolon’s Disclosure of Asserted Claims
20 and Infringement Contentions, and Kolon’s October 2, 2024 letters.

21 110. On information and belief, in addition to being aware of Kolon’s
22 Asserted Patents, Hyosung was aware of Kolon’s HTC and chose to compete with
23 Kolon by copying its patented HTC, following the teachings of Kolon’s Asserted
24 Patents.

25 **THE PARTIES**

26 111. Plaintiff Kolon is a company organized and existing under the laws of
27 the Republic of Korea, with its principal place of business at 110 Magokdong-ro,
28 Gangseo-gu Seoul, 07793, Korea.

1 112. Hyosung Advanced Materials is a company organized and existing
2 under the laws of the Republic of Korea, with its principal place of business at 119,
3 Map-daero, Mapo-gu, Seoul, 04144, Korea.

4 113. Hyosung USA is a company organized and existing under the laws of
5 the State of Delaware with its principal place of business at 15801 Brixham Hill
6 Ave., Suite 575, Charlotte, NC 28277. Hyosung USA maintains an office in this
7 judicial district at 38 Executive Park, Suite 200, Irvine, CA 92614.

8 114. Hyosung Advanced Materials is the global leader of Hyosung's
9 advanced materials division, and its products include the Accused Product.
10 Hyosung Advanced Materials identifies Hyosung USA as part of its global
11 network for offering its products, including the Accused Product.

12 115. Hyosung Advanced Materials states that it is "bolstering [Hyosung's]
13 competitiveness with an optimized global product network" and lists Hyosung
14 USA as one of the U.S. entities in this network. Hyosung USA is the only U.S.
15 entity that Hyosung Advanced Materials lists for tire cord, which includes the
16 Accused Product.

17 <https://www.hyosungadvancedmaterials.com/en/company/about/global-network>
18 (accessed 28 May 2024).

19 116. In its Tire reinforcement catalog, Hyosung Advanced Materials
20 identifies its business as including "19 business sites in 4 countries," including the
21 United States, lists Hyosung USA, and identifies a location in California as one of
22 its business sites in the United States.

23 <https://www.hyosungadvancedmaterials.com/resources/assets/downloads/%ED%83%80%EC%9D%B4%EC%96%B4%EB%B3%B4%EA%B0%95%EC%9E%AC%20%EB%B8%8C%EB%A1%9C%EC%85%94.pdf>
24 (accessed 30 May 2024).

25 117. Hyosung USA acts as the United States arm for Hyosung Advanced
26 Materials, including the Accused Product operations. Hyosung USA operates as
27 part of and at the direction of its global leader Hyosung Advanced Materials to
28

1 offer and sell the Accused Product in the United States.

2 118. Hyosung USA, on its Tire Reinforcements and Industrial Yarns
3 webpages, holds itself out as part of Hyosung Advanced Materials, touting
4 Hyosung Advanced Materials history and experience and referring to itself as part
5 of Hyosung Advanced Materials. *See, e.g.*,
6 [https://www.hyosungusa.com/business/tire_rein_forcement](https://www.hyosungusa.com/business/tire_reinforcement) (accessed 28 May
7 2024) (“Hyosung Advanced Materials has been in the tire reinforcements business
8 since 1968 when *we* became the first Korean company to produce nylon tire cord.”
9 / “Hyosung Advanced Materials is globally recognized for the quality and
10 technological capabilities of *our* products.”) (emphases added); *see also, e.g.*,
11 https://www.hyosungusa.com/business/industrial_yarn (“The industrial yarns
12 produced at Hyosung Advanced Materials are used in various industries, including
13 the automobile, civil engineering, construction, and transportation industries. As
14 the clear leader and the largest company in the South Korean industrial textile
15 industry, *we* are taking the lead in developing and proposing a variety of products
16 designed to meet the diverse needs of customers.”) (emphasis added).

17 119. Hyosung USA also touts Hyosung Advanced Materials’ development
18 of the aramid fiber it sells, under the broad brand name called ALKEX[®], again
19 referring to itself as a part of Hyosung Advanced Materials.
20 https://www.hyosungusa.com/business/yarn_aramid (“ALKEX[®], our aramid fiber
21 was developed in 2003 with *our* proprietary technology and successfully
22 commercialized in 2009.”) (emphasis added). As discussed above, ALKEX[®]
23 refers to a range of aramid fiber products that Hyosung has offered over the years,
24 as its aramid production has improved, and over the years Hyosung has
25 manufactured different aramid fiber for different uses. Certain aramid fiber
26 Hyosung produces today is designed specifically for use in the Accused Products.

27 JURISDICTION AND VENUE

28 120. Kolon incorporates and realleges all the above paragraphs as though

1 fully set forth herein.

2 121. This is an action for patent infringement arising under the Patent Laws
3 of the United States, 35 U.S.C. § 271 et seq. This Court has subject matter
4 jurisdiction under 28 U.S.C. §§ 1331, 1332, and 1338(a).

5 122. This Court has personal jurisdiction over Hyosung because, among
6 other reasons, Defendants have committed acts within the Central District of
7 California giving rise to this action and have established minimum contacts with
8 the forum state of California. Defendants directly and/or through subsidiaries or
9 intermediaries (including distributors, retailers, and others) have committed and
10 continue to commit acts of infringement in this District by, among other things,
11 making, using, importing, offering for sale, and/or selling products, including the
12 Accused Product, that, directly or indirectly, infringe the Asserted Patents.
13 Defendants, directly or through intermediaries, have purposefully and voluntarily
14 placed products, including the Accused Product, that, directly or indirectly,
15 infringe the Asserted Patents into the stream of commerce with the intention and
16 expectation that they will be purchased and used, including in this judicial district.
17 Thus, Defendants have purposefully availed themselves of the benefits of doing
18 business in the State of California, and this judicial district, and the exercise of
19 jurisdiction over Defendants would not offend traditional notions of fair play and
20 substantial justice.

21 123. Hyosung Advanced Materials at least in part conducts its U.S.
22 business—including its business in California—through Hyosung USA, which
23 maintains an office in this judicial district. That U.S. business includes offering for
24 sale and selling products that, directly or indirectly, infringe the Asserted Patents.

25 124. Hyosung Advanced Materials has continuous and systematic contacts
26 with the State of California, which include regularly and continuously transacting
27 and doing business in the State of California—including in and from this judicial
28 district—at least through its contacts with, and business conducted through,

1 Hyosung USA, its arm for operations in the United States.

2 125. Hyosung Advanced Materials has had products, including the
3 Accused Product, that, directly or indirectly, infringe the Asserted Patents imported
4 into the United States including California, as shown for example in importation
5 records (Exhibit 1), either by itself or through related entities that conduct Hyosung
6 Advanced Materials' business.

7 126. Hyosung Advanced Materials has sold products, including the
8 Accused Product, to third parties (e.g., Hankook) that, directly or indirectly,
9 infringe the Asserted Patents. Those third parties have offered for sale, sold, and
10 used products containing Hyosung Advanced Materials' infringing products,
11 including the Accused Product, in the United States and/or imported into the
12 United States, including California and this judicial district. Hyosung knew and
13 expected that those products, including the Accused Product, would be offered for
14 sale, sold, and used in the United States and/or imported into the United States,
15 including California and this judicial district.

16 127. In the alternative, this Court has personal jurisdiction over Hyosung
17 Advanced Materials pursuant to Federal Rule of Civil Procedure 4(k)(2) because
18 Hyosung Advanced Materials has sufficient minimum contacts with the United
19 States and, if Hyosung Advanced Materials is not subject to any state's court of
20 general jurisdiction, this Court has personal jurisdiction over Hyosung Advanced
21 Materials because it has sufficient minimum contacts with the United States as a
22 whole.

23 128. The Court has personal jurisdiction over Hyosung USA because
24 Hyosung USA maintains an office in this judicial district at 38 Executive Park,
25 Suite 200, Irvine, CA 92614, and has continuous and systematic contacts with the
26 State of California, which include regularly and continuously transacting and doing
27 business in the State of California, including in and from this judicial district.

28 129. Venue is proper within this judicial district under 28 U.S.C. §§ 1391

1 and/or 1400(b).

2 130. Hyosung Advanced Materials is a resident of South Korea and
3 therefore may be sued in any judicial district that has personal jurisdiction over
4 Hyosung Advanced Materials, and this judicial district has personal jurisdiction
5 over Hyosung Advanced Materials. Accordingly, this venue is proper within this
6 judicial district for Hyosung Advanced Materials.

7 131. Hyosung USA has a regular and established place of business in this
8 District and, on information and belief, has committed acts of patent infringement
9 in this District.

10 **COUNT I**

11 **INFRINGEMENT OF THE '663 PATENT**

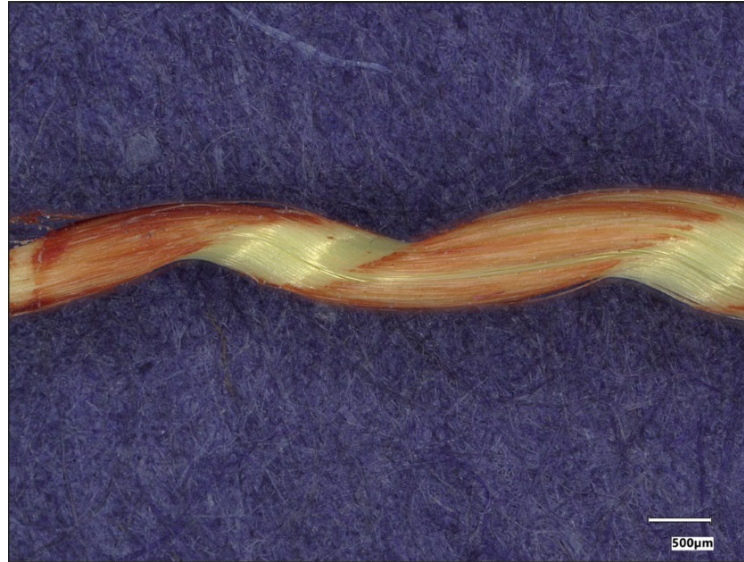
12 132. Kolon incorporates and realleges all the above paragraphs as though
13 fully set forth herein.

14 133. Hyosung has infringed and continues to infringe one or more claims
15 of the '663 patent, including but not limited to claim 1, pursuant to 35 U.S.C.
16 § 271(g), at least by without authority importing into the United States and/or
17 offering to sell, selling, and/or using within the United States the Accused Product,
18 which is made by a process patented by claim 1 of the '663 patent and is neither
19 materially changed by subsequent processes nor becomes a trivial or nonessential
20 component of another product.

21 134. Hyosung's Accused Product is made by the method of manufacturing
22 a hybrid tire cord claimed by the '663 patent.

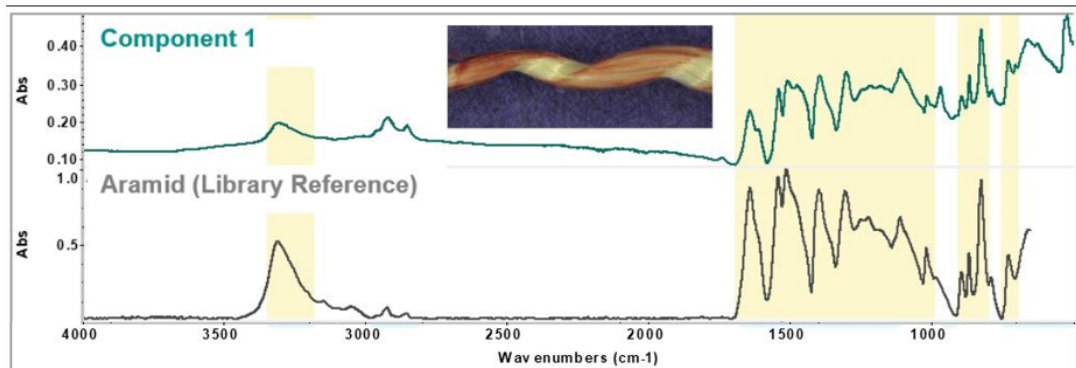
23 135. In the method of manufacturing Hyosung's Accused Product, there is
24 a first step of primarily twisting an aramid filament yarn in a first direction to form
25 an aramid primarily twisted yarn. Hyosung's Accused Product has an aramid
26 filament yarn primarily twisted in a first direction, as shown in Picture 2 below.
27 Picture 2 is a picture of aramid filament yarn from the sample of the Accused
28 Product shown in Picture 1. Aramid filament yarn has a golden color, which can

1 be seen in Picture 2, underneath the reddish coating and in areas that do not have
2 the reddish coating.



12 **Picture 2**

13 136. Fourier Transform Infrared Spectroscopy (FTIR) analysis confirms
14 that the yarn in the Accused Product is aramid filament yarn as shown below.



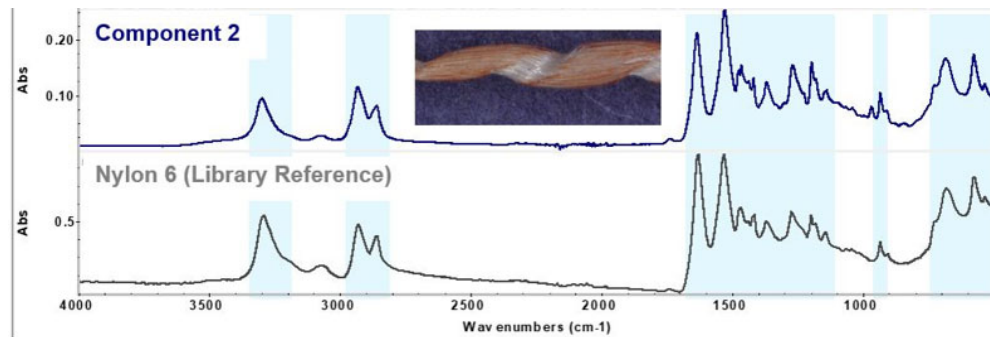
22 137. In the method of manufacturing Hyosung's Accused Product, there is
23 a second step of primarily twisting a nylon filament yarn in a second direction to
24 form a nylon primarily twisted yarn. Hyosung's Accused Product has a nylon
25 filament yarn primarily twisted in a second direction, as shown in Picture 3 below.
26 Picture 3 is a picture of nylon filament yarn from the sample of the Accused
27 Product shown in Picture 1. Nylon filament yarn has a whitish color, which can be
28 seen in Picture 3, underneath the reddish coating and in areas that do not have the

1 reddish coating.



12 **Picture 3**

13 138. FTIR analysis confirms that the yarn in the Accused Product is nylon
14 filament yarn as shown below.



20 2139. In the method of manufacturing Hyosung's Accused Product, this
21 second step and the first step are conducted simultaneously. In Hyosung's '414
22 published application, Hyosung describes twisting the aramid and the nylon
23 filament yarns "at the same time" and states that "each wound yarn is twisted by a
24 direct cabler," which is a device used to twist aramid and nylon filament yarns
25 simultaneously. '414 published application, ¶¶ [0095], [0097], [0115], [0116],
26 [0134].

27 28140. In the method of manufacturing Hyosung's Accused Product, there is
a third step of secondarily twisting the aramid primarily twisted yarn and the nylon

1 primarily twisted yarn in a third direction to form a plied yarn. Hyosung's
2 Accused Product has an aramid primarily twisted yarn and a nylon primarily
3 twisted yarn secondarily twisted in a third direction to form a plied yarn, as shown
4 in Picture 1, copied below.



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13 **Picture 1**

14 141. In the method of manufacturing Hyosung's Accused Product, this
15 third step is conducted continuously with the first and second steps. On
16 information and belief, Hyosung uses a direct cabler in manufacturing the Accused
17 Product which, as described in its '414 published application, simultaneously
18 performs the twisting of the separate aramid and nylon filament yarns as well as
19 the twisting of yarns together. Hyosung's '414 published application discloses use
20 of a "a direct cabler," which is a device "in which both the S-twist and the Z-twist
21 simultaneously occur." '414 published application, ¶ [0007]; *see also id.* ¶ [0010]
22 ("in the direct cabler where the S-twist and the Z-twist simultaneously occur"). On
23 information and belief, Hyosung uses a direct cabler in manufacturing the Accused
24 Product.

25 142. The first, second, and third steps in manufacturing the Accused
26 Product are conducted by one twister. On information and belief, as Hyosung
27 describes in its '414 published application, Hyosung performs the first, second, and
28 third steps using one twister—a direct cable twister.

1 143. In the method of manufacturing Hyosung's Accused Product, the
2 second direction is the same as the first direction, and the third direction is opposite
3 the first direction. This is shown in the pictures above.

4 144. In the method of manufacturing Hyosung's Accused Product, the
5 tension applied to the nylon filament yarn in the second step is higher than tension
6 applied to the aramid filament yarn in the first step in such an amount that, if the
7 secondary twist of the hybrid tire cord with a predetermined length were untwisted,
8 the aramid primarily twisted yarn would be 1.005 to 1.025 times longer than the
9 nylon primarily twisted yarn. Measurement of a sample of Hyosung's Accused
10 Product has shown, for example, that the aramid primarily twisted yarn is about
11 1.014 times longer than the nylon primarily twisted yarn when a predetermined
12 length of the Accused Product is untwisted, which is indicative that Hyosung
13 practices this step of the method.

14 145. Hyosung describes practicing this claimed step in its published
15 application. Hyosung states in its '414 published application that "aramid yarn is
16 injected 5 to 100 mm/m longer than that of nylon 6,6 or nylon 6 yarn at the time of
17 applying the ply twist for producing the raw cord," which corresponds to aramid
18 primarily twisted yarn that is 1.005 to 1.010 times longer than the nylon primarily
19 twisted yarn. '414 published application, ¶ [0095]. In this process, the aramid is
20 injected with this longer length by applying higher tension to the nylon filament
21 yarn.

22 146. Accordingly, Hyosung's method of manufacturing its Accused
23 Product satisfies each and every limitation of one or more claims of the '663
24 patent, including but not limited to claim 1.

25 147. With knowledge of the '663 patent and its infringement, Hyosung has
26 indirectly infringed and continues to indirectly infringe one or more claims of the
27 '663 patent, including but not limited to claim 1, pursuant to 35 U.S.C. § 271(b), at
28 least by without authority actively inducing others, including its tire manufacturing

1 partners, to directly infringe one or more claims of the '663 patent.

2 148. Hyosung encourages, instructs, enables, and/or otherwise causes
3 infringement by others, including its tire manufacturing partners. Hyosung
4 manufactures the Accused Product by a process covered by one or more claims of
5 the '663 patent and then actively induces infringement by others by knowingly
6 providing the Accused Product to be imported into the United States, offered for
7 sale, sold, or used within the United States. The Accused Product is not materially
8 changed by subsequent processes and does not become a trivial and nonessential
9 component of another product regardless of whether it is imported into the United
10 States, offered for sale, sold, or used within the United States in the form of hybrid
11 tire cord itself or as hybrid tire cord integrated into a tire.

12 149. Hyosung's infringement has caused and is continuing to cause
13 damage and irreparable injury to Kolon. Kolon will continue to suffer damage and
14 irreparable injury unless and until that infringement is enjoined by this Court, as a
15 remedy at law alone would be inadequate.

16 150. Kolon is entitled to injunctive relief and damages in accordance with
17 35 U.S.C. §§ 271, 281, 283, and 284.

18 151. Kolon is entitled to pre-suit damages for Hyosung's infringement.
19 Because the asserted claims of the '663 patent are method claims, the notice of 35
20 U.S.C. § 287 are inapplicable.

21 152. Hyosung has been willfully infringing the '663 patent, and thus Kolon
22 is entitled to recover increased damages under 35 U.S.C. § 284. Hyosung's willful
23 infringement makes this case exceptional, and thus Kolon is entitled to recover
24 attorneys' fees under 35 U.S.C. § 285.

25 **COUNT II**

26 **INFRINGEMENT OF THE '731 PATENT**

27 153. Kolon incorporates and realleges all the above paragraphs as though
28 set forth fully herein.

1 154. Hyosung has infringed and continues to infringe one or more claims
2 of the '731 patent, including but not limited to claim 4, pursuant to 35 U.S.C. §
3 271(g), at least by without authority importing into the United States and/or
4 offering to sell, selling, or using within the United States the Accused Product,
5 which is made by a process patented by claim 4 of the '731 patent and is neither
6 materially changed by subsequent processes nor becomes a trivial or nonessential
7 component of another product.

8 155. Hyosung's Accused Product is made by the method of manufacturing
9 a hybrid fiber cord claimed by the '731 patent.

10 156. In the method of manufacturing Hyosung's Accused Product, there is
11 a first step for primarily-twisting a nylon filament at a first twist number of 300 to
12 500 TPM to produce a nylon primarily-twisted yarn. A sample of Hyosung's
13 Accused Product has a nylon primarily-twisted yarn with a first twist number at or
14 slightly above 300 TPM, which is indicative that Hyosung practices this step of the
15 method.

16 157. In the method of manufacturing Hyosung's Accused Product, there is
17 a second step for primarily-twisting an aramid filament at a second twist number of
18 300 to 500 TPM to produce an aramid primarily-twisted yarn. A sample of
19 Hyosung's Accused Product has an aramid primarily-twisted yarn with a second
20 twist number at or slightly above 300 TPM (and slightly lower than the twist
21 number of the nylon filament because application of the same twist number during
22 the manufacturing method to the slightly longer aramid filament results in a
23 slightly lower twist number in a given length of the product), which is indicative
24 that Hyosung practices this step of the method.

25 158. In the method of manufacturing Hyosung's Accused Product, there is
26 a third step for secondarily-twisting the nylon and aramid primarily-twisted yarns
27 together at a third twist number to produce a ply yarn in such a way that the nylon
28 and aramid primarily-twisted yarns have identical structures with each other.

1 Hyosung's Accused Product has a third twist number at or slightly above 300
2 TPM. Hyosung's Accused Product is a ply yarn with the nylon and aramid
3 primarily-twisted yarns having identical structures with each other, as shown in
4 Picture 1 above.

5 159. In the method of manufacturing Hyosung's Accused Product, there is
6 a step of coating the ply yarn with an adhesive. Hyosung's Accused Product is a
7 ply yarn coated with an adhesive, as shown in the pictures above.

8 160. As a result of the method of manufacturing Hyosung's Accused
9 Product, the ply yarn coated with the adhesive has a strength retention rate of 80%
10 or more after a disc fatigue test is performed according to JIS-L 1017 method of
11 Japanese Standard Associations and has a dry heat shrinkage of 1.5 to 2.5%.
12 Measurement of a sample of Hyosung's Accused Product has shown, for example,
13 that the Accused Product has a strength retention rate of over 90% after a disc
14 fatigue test is performed according to JIS-L 1017 method of Japanese Standard
15 Associations. On information and belief, Hyosung's Accused Product meets this
16 claim requirement for heat shrinkage because its Accused Product must satisfy the
17 specifications of its tire manufacturing partners, such as Hankook. For example,
18 Hankook's specification has required a dry heat shrinkage in a range that
19 corresponds to the patented heat shrinkage range, and the standard value for heat
20 shrinkage in Hankook's specification has been within the patented range.

21 161. In the method of manufacturing Hyosung's Accused Product, the first,
22 second, and third twist numbers are identical with each other. As discussed above,
23 Hyosung uses a direct cabler to manufacture its Accused Product, and a direct
24 cabler is used to twist each yarn separately, and the yarns together, at a single twist
25 number.

26 162. In the method of manufacturing Hyosung's Accused Product, the third
27 step produces a 2-ply secondarily-twisted yarn consisting of 1-ply of nylon
28 primarily-twisted yarn and 1-ply of aramid primarily-twisted yarn. Hyosung's

1 Accused Product is a 2-ply secondarily-twisted yarn consisting of 1-ply of nylon
2 primarily-twisted yarn and 1-ply of aramid primarily-twisted yarn, as shown in
3 Pictures 1 to 3 above.

4 163. Accordingly, Hyosung's method of manufacturing its Accused
5 Product satisfies each and every limitation of one or more claims of the '731
6 patent, including but not limited to claim 4.

7 164. With knowledge of the '731 patent and its infringement, Hyosung has
8 indirectly infringed and continues to indirectly infringe one or more claims of the
9 '731 patent, including but not limited to claim 4, pursuant to 35 U.S.C. § 271(b), at
10 least by without authority actively inducing others, including its tire manufacturing
11 partners, to directly infringe one or more claims of the '731 patent.

12 165. Hyosung encourages, instructs, enables, and/or otherwise causes
13 infringement by others, including its tire manufacturing partners. Hyosung
14 manufactures the Accused Product by a process covered by one or more claims of
15 the '731 patent and then actively induces infringement by others by knowingly
16 providing the Accused Product to be imported into the United States, offered for
17 sale, sold, or used within the United States. The Accused Product is not materially
18 changed by subsequent processes and does not become a trivial and nonessential
19 component of another product regardless of whether it is imported into the United
20 States, offered for sale, sold, or used within the United States in the form of hybrid
21 tire cord itself or as hybrid tire cord integrated into a tire.

22 166. Hyosung's infringement has caused and is continuing to cause
23 damage and irreparable injury to Kolon. Kolon will continue to suffer damage and
24 irreparable injury unless and until that infringement is enjoined by this Court, as a
25 remedy at law alone would be inadequate.

26 167. Kolon is entitled to injunctive relief and damages in accordance with
27 35 U.S.C. §§ 271, 281, 283, and 284.

28 168. Kolon is entitled to pre-suit damages for Hyosung's infringement.

1 Because the asserted claims of the '731 patent are method claims, the notice of 35
2 U.S.C. § 287 are inapplicable.

3 169. Hyosung has been willfully infringing the '731 patent, and thus Kolon
4 is entitled to recover increased damages under 35 U.S.C. § 284. Hyosung's willful
5 infringement makes this case exceptional, and thus Kolon is entitled to recover
6 attorneys' fees under 35 U.S.C. § 285.

7 **COUNT III**

8 **INFRINGEMENT OF THE '765 PATENT**

9 170. Kolon incorporates and realleges the above paragraphs as though set
10 forth fully herein.

11 171. Hyosung has infringed and continues to infringe one or more claims
12 of the '765 patent, including but not limited to claim 1, pursuant to 35 U.S.C. §
13 271(a), at least by without authority making, using, offering to sell and/or selling
14 the Accused Product within the United States and/or importing the Accused Product
15 into the United States. Hyosung's Accused Product is a hybrid tire cord.

16 172. Hyosung's Accused Product comprises a nylon primarily twisted
17 yarn. A picture of the nylon primarily twisted yarn is shown in Picture 3 above.

18 173. Hyosung's Accused Product comprises an aramid primarily twisted
19 yarn. A picture of the aramid primarily twisted yarn is shown in Picture 2 above.

20 174. In Hyosung's Accused Product, the nylon primarily twisted yarn and
21 the aramid primarily twisted yarn are secondarily twisted together. A picture of
22 the nylon primarily twisted yarn and the aramid primarily twisted yarn secondarily
23 twisted together are shown in Picture 1 above.

24 175. In Hyosung's Accused Product, if the secondary twist of the hybrid
25 tire cord with a predetermined length were untwisted, a length of the aramid
26 primarily twisted yarn would be 1.005 to 1.025 times a length of the nylon
27 primarily twisted yarn. Measurement of a sample of Hyosung's Accused Product
28 has shown, for example, that the length of the aramid primarily twisted yarn is

1 about 1.014 times the nylon primarily twisted yarn when the secondary twist of a
2 predetermined length of the Accused Product is untwisted.

3 176. In Hyosung's Accused Product, the aramid primarily twisted yarn has
4 a 0.1 to 5% lower twist number than a twist number of the nylon primarily twisted
5 yarn. Measurement of a sample of Hyosung's Accused Product has shown, for
6 example, aramid primarily twisted yarn having about 2% lower twist number than
7 a twist number of the nylon primarily twisted yarn.

8 177. In Hyosung's Accused Product, the hybrid tire cord has a merge
9 structure having a partial covering structure, as shown in Picture 1 above and in
10 Picture 4 below. Picture 4 is an enlarged photograph of a part of the Picture 1,
11 which is also a photograph of the Accused Product.



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20 **Picture 4**

21 178. Accordingly, Hyosung's Accused Product satisfies each and every
22 limitation of one or more claims of the '765 patent, including but not limited to
23 claim 1.

24 179. With knowledge of the '765 patent and its infringement, Hyosung has
25 indirectly infringed and continues to indirectly infringe one or more claims of the
26 '765 patent, including but not limited to claim 1, pursuant to 35 U.S.C. § 271(b), at
27 least by without authority actively inducing others, including its tire manufacturing
28 partners, to directly infringe one or more claims of the '765 patent.

1 180. Hyosung encourages, instructs, enables, and/or otherwise causes
2 infringement by others, including its tire manufacturing partners. Hyosung
3 actively induces infringement by others by knowingly providing the Accused
4 Product to be imported into the United States, offered for sale, sold, or used within
5 the United States in the form of hybrid tire cord itself or as hybrid tire cord
6 integrated into a tire.

7 181. Hyosung's infringement has caused and is continuing to cause
8 damage and irreparable injury to Kolon. Kolon will continue to suffer damage and
9 irreparable injury unless and until that infringement is enjoined by this Court, as a
10 remedy at law alone would be inadequate.

11 182. Kolon is entitled to injunctive relief and damages in accordance with
12 35 U.S.C. §§ 271, 281, 283, and 284.

13 183. Kolon has satisfied all statutory obligations required to collect pre-
14 filing damages for the infringement of the '765 patent under 35 U.S.C. § 287(a).
15 Hyosung was notified of the infringement through Kolon's February 4, 2021 letter,
16 its prior complaints in this action, its Disclosure of Asserted Claims and
17 Infringement Contentions, and at the latest through Kolon's October 2, 2024 letters
18 identifying the specific product accused of infringing the Asserted Patents, and
19 continued to infringe thereafter.

20 184. Hyosung has been willfully infringing the '765 patent, and thus Kolon
21 is entitled to recover increased damages under 35 U.S.C. § 284. Hyosung's willful
22 infringement makes this case exceptional, and thus Kolon is entitled to recover
23 attorneys' fees under 35 U.S.C. § 285.

24 **PRAYER FOR RELIEF**

25 WHEREFORE, Kolon respectfully requests judgment in its favor and
26 against Hyosung as follows:

27 A. Adjudging that Hyosung has infringed the '663, '731, and '765
28 patents, in violation of 35 U.S.C. § 271;

1 B. Granting a permanent injunction enjoining Hyosung, its employees,
2 agents, officers, directors, attorneys, representatives, successors, affiliates,
3 subsidiaries, and assigns, and all of those in active concert and participation with
4 any of the foregoing persons or entities from infringing, directly or indirectly, the
5 '663, '731, and '765 patents;

6 C. Ordering Hyosung to account and pay damages adequate to
7 compensate Kolon for Hyosung's infringement, including prejudgment and post-
8 judgment interest and costs, pursuant to 35 U.S.C. § 284;

9 D. Ordering an accounting for any infringing sales not presented at trial
10 and an award by the Court of additional damages for any such infringing sales;

11 E. Ordering that the damages award be increased up to three times the
12 actual amount assessed, pursuant to 35 U.S.C. § 284;

13 F. An award of Kolon's costs and expenses as a prevailing party;

14 G. Declaring this case exceptional and awarding Kolon its reasonable
15 attorneys' fees, pursuant to 35 U.S.C. § 285; and

16 H. Awarding such other and further relief as this Court deems just and
17 proper.

18 **JURY DEMAND**

19 Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Kolon
20 hereby demands trial by jury of all issues so triable.

21
22 DATED: October 11, 2024

Respectfully submitted,

LATHAM & WATKINS LLP

/s/ Charles H. Sanders

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