

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

3SHAPE TRIOS A/S,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. _____
	)	
ALIGN TECHNOLOGY, INC.,	)	<b>JURY TRIAL DEMANDED</b>
	)	
Defendant.	)	

**COMPLAINT**

Plaintiff 3Shape Trios A/S, by and through its undersigned counsel, states as follows for its Complaint against Defendant Align Technology, Inc.:

1. Plaintiff 3Shape Trios A/S (“3Shape”) brings this lawsuit to restore competition in two separate but related markets: the Market For Clear Aligners and the market for digital intraoral scanners used by dental professionals to generate full mouth scans to order these aligners (“Scanners For Orthodontic Treatment”). Defendant Align Technology, Inc. (“Align”) is the dominant producer of clear aligners and a major manufacturer and seller of Scanners For Orthodontic Treatment. It is using its dominant position to stifle competition and crush rivals and would-be entrants in both markets. That conduct is harming customers and competitors in both markets.

2. Until recently, Align maintained its dominance over clear aligners by aggressively deploying its patent portfolio. But now, with its patents beginning to expire, Align faced increasing pressure from rival and would-be clear aligner manufacturers. Rather than compete on the merits, Align developed an anticompetitive scheme to preserve its dominance.

3. The linchpin of Align's scheme was to cut off its clear aligner rivals' access to the dental professionals who order them. As Align has repeatedly emphasized, dental professionals require a fast and accurate way to scan patients' full mouths—the upper and lower jaws, teeth and bite—and to transfer that scan to a clear aligner manufacturer. There are only two viable scanners for this purpose: 3Shape's Trios scanner and Align's iTero scanner. One of the principal differences between the Align iTero and the Trios is that Trios provides an open, integrated digital system for ordering clear aligners from Align *or* its competitors, while the iTero scanner is a *de facto* closed system, designed specifically to send digital scans to Align, that imposes additional costs and burdens on dental professionals who wish to order clear aligners from one of Align's rival manufacturers.

4. Align first tried to convince 3Shape to protect Align's monopoly share by eliminating Trios's open access features. When 3Shape refused to accede to that anticompetitive demand, Align then sought to form a joint venture with 3Shape to control Trios. When 3Shape refused a second time, Align cut off dental professionals' ability to send Trios scans to Align. Without Trios access to the dominant clear aligners, dental professionals are being forced to switch to the iTero scanner, a move that Align is encouraging by publicizing its decision to prevent dental professionals from using Trios to access Align's clear aligners.

5. Align's scheme is working. It has effectively shut 3Shape out of the United States Market For Scanners For Orthodontic Treatment and boosted sales of its iTero product. As a result, Align is succeeding in its attempt to monopolize the Market For Scanners For Orthodontic Treatment.

6. Align is also maintaining its monopoly grip on the Clear Aligner Market. By shutting out 3Shape, Align has cut off its clear aligner rivals' access to the dental professionals

who order clear aligners. Injuring 3Shape was the very means by which Align could attack its clear aligner competitors: 3Shape's injury was necessary to Align's plans.

7. Align's anticompetitive conduct has reduced choices and raised prices for consumers in both the Clear Aligner Market and Scanners For Orthodontic Treatment Market, and will continue to do so unless this Court intervenes.

### **Jurisdiction and Venue**

8. The Court has subject matter jurisdiction over this matter pursuant to 28 U.S.C. §§ 1331 and 117, and Section 4 of the Clayton Act, 15 U.S.C. § 15, because 3Shape brings these civil antitrust claims under Section 2 of the Sherman Act, 15 U.S.C. § 2.

9. The Court has personal jurisdiction over Defendant because Defendant (a) has consented to personal jurisdiction of this Court in connection with its patent infringement lawsuits against 3Shape, (b) transacted business in this judicial district, (c) directly sold its clear aligners in this judicial district as well as in interstate trade and commerce, (d) has substantial contacts with this judicial district, and (e) has engaged in the alleged wrongful conduct in this judicial district.

10. Venue is proper in this judicial district under Section 4 of the Clayton Act, 15 U.S.C. §§ 15, Section 12 of the Clayton Act, 15 U.S.C. § 22, and 28 U.S.C. §§ 1391(b) and (c), because Defendant, a Delaware corporation, resides in this judicial district, Defendant transacts business in this judicial district, and during all relevant times, a substantial part of the events or omissions giving rise to these civil antitrust claims occurred in this judicial district.

11. The conduct complained of herein has occurred in and had a substantial effect on interstate trade and commerce.

### **The Parties**

12. 3Shape is incorporated in Denmark with its principal place of business at Holmens Kanal 7, 1060 Copenhagen, Denmark. 3Shape has a United States sister corporation, 3Shape Inc., which is incorporated in Delaware with its principal place of business in Warren, New Jersey. 3Shape Inc. provides marketing, warranty and repair services for 3Shape's products and supports 3Shape's third party U.S. resellers/distributors.

13. Align is incorporated in Delaware, with its principal place of business at 2820 Orchard Parkway, San Jose, California.

### **Facts**

#### **Align's Business**

14. Align is a \$1.5 billion public company. Its main offering is Invisalign<sup>®</sup>, a doctor-prescribed, custom-manufactured removable dental aligner made of clear plastic that corrects teeth misalignment ("clear aligner").

15. Invisalign is the dominant product in the clear aligner market. Align manufactures and sells at least 80 percent of clear aligners in the United States. Its largest competitor, Clear Correct, sells less than 10 percent.

16. Align's business is heavily dependent on revenue from Invisalign, as the majority of its revenue is from Invisalign, and it consistently earns around 78 percent gross margin on Invisalign.

17. Align's revenues from Invisalign continue to increase. In its second quarter 2018 earnings report, Align reported a 30.5 percent increase year-over-year for its clear aligner segment and a 53.4 percent increase in net profit year-over-year.

18. Align markets Invisalign to dental professionals, who prescribe the clear aligners to patients and place a custom order for the product from Align, and also directly to consumers, who must order Invisalign through an Invisalign provider.

19. Invisalign continues to grow among dental professionals. Align stated in its most recent earnings release for the second quarter of 2018 that utilization of Invisalign among North American orthodontists (the dental professionals that most frequently order clear aligners) is at an all-time high. Align trained 1,605 new dental professionals on the Invisalign system in the first quarter of 2018, and an additional 1,795 new dental professionals in the second quarter of 2018.

20. In September 2015, Align began selling its iTero Element (“iTero”), its updated scanner for orthodontic treatment.

21. Scanners For Orthodontic Treatment are designed to, and do, generate a digital impression of a patient’s full mouth—upper and lower jaws, teeth and bite—and are optimized to provide such scans for clear aligners. Specifically, dental professionals use these scanners to scan a patient’s full mouth to obtain a three-dimensional digital impression of the patient’s dental structure (a “scan”) for orthodontic treatment. Dental professionals then submit the scans to clear aligner manufacturers for clear aligners that are customized to treat the patient’s needs. Having the ability to access and receive scans is indispensable to competing in the Clear Aligner Market.

22. iTero is a *de facto* closed system, designed specifically to send digital scans to Align for orders of its Invisalign clear aligners. Unless a dental professional incurs additional costs and fees, the iTero scanner can only take and send digital scans to Align for Invisalign and not for rival clear aligners.

23. Even if a dental professional pays the additional costs and fees to Align, Align designed the system to make it burdensome and difficult to transmit a scan to a non-Align clear aligner manufacturer; the dental professional must navigate a time-consuming, multi-step conversion and transmission process to send iTero scans to a non-Align clear aligner manufacturer. This is not a viable option for dental professionals, particularly those, like orthodontists, that regularly order clear aligners; in addition to adding expense and burden, the process decreases file resolution, increasing the risk of error in the resulting clear aligners.

24. As a result, dental professionals who purchase an iTero are effectively locked into exclusively ordering Invisalign. That lock-in furthers Align's goal "to establish Invisalign clear aligners as the standard method for treating malocclusion and to establish the iTero intraoral scanner as the preferred scanning device for 3D digital scans, ultimately driving increased product adoption by dental professionals," as stated in its most recent annual report.

### **3Shape's Business**

25. 3Shape is a pioneer developer of dental equipment and software for use by dental professionals and laboratories since 2004. In particular, 3Shape designs, develops, manufactures, and sells Trios, the first color, wireless intraoral full mouth scanner in the industry, and software products. The Trios system can be used for scanning, designing and ordering of clear aligners and a number of other orthodontic treatments or dental products.

26. Trios has been named the best intraoral scanner by the industry for five years in a row. Trios was also named the most accurate intraoral scanner in an independent American Dental Association study.

27. Trios has numerous operational advantages for dental professionals as well. The most important is that Trios is an open system scanner, integrated with many different providers

of restorative products and orthodontic treatments. Dental professionals can send scans directly from Trios to any provider that accepts STL files, the open industry standard file format. Trios's open system provides patients and dental professionals freedom of choice and access to an open market for dental and orthodontic treatments.

28. Trios and iTero are the two viable scanners for orthodontic treatment that easily and accurately scan a patient's upper and lower jaws, teeth and bite to create a digital 3D impression for ordering clear aligners. And for all of the reasons described above, Trios is the preferred intraoral scanner for orthodontists.

**The Expiration of Align's Patent Portfolio Threatens Its Dominant Position in the Clear Aligner Market**

29. Align has enjoyed unfettered dominance in the clear aligner market in the United States. As a well-known investment analysis company estimated in September 2017, Align "maintains a dominating 90%+ share of the 1B+ clear aligner orthodontic market."

30. That same report explained that Align's "near-monopoly control over the clear aligner market [is] largely due to its strong IP portfolio that makes it difficult for others to effectively compete" for clear aligner sales.

31. Align's key patents covering the design and manufacturing of Invisalign expired in October 2017. Many of Align's remaining patents relating to Invisalign will expire by 2019, with additional patents expiring each subsequent year.

32. The expiration of Align's patents will allow increased competition for the manufacture and sale of clear aligners. There are potential new clear aligner entrants, as well as the existing competitors. These companies will be better able to innovate without risking

expensive patent litigation asserted by Align to protect its dominance, thus creating attractive alternatives to the Invisalign product and driving down price.

**Align Erected Barriers to Competition in the Clear Aligner Market**

33. Faced with this prospect of increased competition and decreased price, Align did not do what any company in a competitive market should do—improve its products and lower costs. Instead, armed for now with a dominant Clear Aligner Market position, it found ways to entrench that dominance by excluding its current and would-be rivals.

34. By introducing the iTero scanner as a *de facto* closed system, Align had already erected barriers for accepting digital scans for Invisalign. Those barriers are reinforced by the fact that Align does not accept Invisalign orders from digital scans in industry standard STL file format emailed from a dental professional. Instead, Align requires either a digital scan produced within Align’s closed system format or a manual dental impression made by inserting a metal or plastic tray containing impression material, such as silicone-based polyvinyl-siloxane or alginate, into a patient’s mouth to general a cast of the patient’s teeth (“Silicone Mold”). Producing a Silicone Mold is a time and cost consuming process for the dental professional, and using a Silicone Mold to create a clear aligner is less accurate than using digital scans from the dental professional. Align further controlled access to its dominant clear aligner product by refusing to accept third-party digital scans except from a limited number of authorized scanners with which it has interoperability agreements.

35. Until recently, the anticompetitive effects of Align’s interoperability limits were mitigated because 3Shape had an interoperability agreement with Align for the Trios scanner. The interoperability between Align and Trios was governed by a Scanner Agreement that the parties signed in December 2015, and 3Shape was certified by Align to send digital scans from

the Trios scanner to Align for Invisalign orders beginning in October 2016. Absent the Scanner Agreement, Trios scanners could not send digital scans to Align for Invisalign.

36. Interoperability between Trios and Invisalign substantially increased Invisalign orders to Align's economic benefit. Between October 2016 and the end of January 2018, dental professionals sent over 40,000 orders for Invisalign through Trios in the United States. At a consumer price of \$3,000 to \$8,000 per Invisalign treatment, these cases significantly contributed to Align's revenue. Interoperability also benefited dental professionals and 3Shape, as it further enhanced the functionality of the Trios scanner and made the clear aligner market a more open platform.

37. As long as dental professionals could use the Trios scanner to order Invisalign clear aligners, they had a viable alternative to iTero for clear aligner scans, and the ability (through the Trios scanner) to select competing clear aligner manufacturers. The Trios scanner, however, is the only such viable alternative to the iTero scanner.

38. Align, on information and belief, put in place interoperability agreements with two other intraoral scanners — the 3M True Definition and the Sirona CEREC Omnicam — but those agreements did not (and were not intended to) foster an open marketplace or meaningfully erode Align's control of its ecosystem. The True Definition and CEREC Omnicam scanners are not adequate substitutes for the iTero or Trios scanners because neither scanner is well suited to provide full mouth scans for clear aligner orders.

39. Unlike the iTero and Trios scanners, which were designed and manufactured to be Scanners For Orthodontic Treatment, both the Sirona CEREC Omnicam and 3M True Definition scanners are focused on scanning individual teeth for crowns and similar local dental restorative

work and not on comprehensive, full-mouth orthodontic treatments. It takes significantly longer to scan a patient's entire mouth with either scanner than with Trios, for example.

40. Both scanners are also technologically inferior to the iTero and Trios scanners. Neither is purchased by dental professionals as a Scanner For Orthodontic Treatment, including for ordering clear aligners. The actual utilization rates for 3M's and Sirona's scanners to order clear aligners are low, and both have been declining in the market.

41. The process for sending the digital scans to Align from the True Definition or CEREC Omnicam scanners is also more cumbersome and time consuming than sending digital scans from the iTero scanner and requires an additional, manual quality approval step based on the poor quality of the scan from such scanners.

42. As a result of these deficiencies, the CEREC Omnicam and True Definition scanners are not viable options for dental professionals seeking to send digital scans for clear aligners.

43. While there are a handful of other scanners capable of generating full mouth scans, they collectively represent only roughly 10 percent of the sales in the Market For Scanners For Orthodontic Treatment in the United States and do not price constrain Align's ability to market and price the iTero scanner.

#### **Align Tried to Bully 3Shape Into Protecting Align's Clear Aligner Dominance**

44. Align started its efforts to foreclose its rivals from gaining a foothold in the Clear Aligner Market even before the interoperability with the Trios scanner was finalized. In early 2015, Align insisted on exclusivity in order to grant interoperability—meaning that Trios scanners could only be used to order Invisalign clear aligners—as a condition of interoperability with Align's system. 3Shape refused, as exclusivity would go against its philosophy of

maintaining an open ecosystem in which scans from 3Shape's scanner can be sent to all suppliers of clear aligners, not only to Align. For that reason, the Scanner Agreement entered into by the parties in December 2015 expressly permitted 3Shape to provide scans to other clear aligner manufacturers.

45. In February 2016, at a meeting between Align and 3Shape, Align made clear that, as part of any further collaboration between the companies, 3Shape would need to treat Invisalign as the "preferred partner" for clear aligners. Align was represented at this meeting by its President and Chief Executive Officer (Joseph Hogan) and its Chief Marketing, Portfolio and Business Development Officer (Raphael Pascaud).

46. At a meeting between the parties in November 2016, once interoperability had been established, Mr. Pascaud wanted 3Shape to commit to *de facto* exclusivity with Invisalign, which would block competing clear aligner manufacturers. To create this exclusivity, Mr. Pascaud asked 3Shape to enter into an anticompetitive joint venture into which 3Shape would contribute the Trios scanner, the result of which would effectively allow Align to control the Trios scanner. The pretextual nature of the proposal was underscored by the fact that Align would maintain separate control of Invisalign.

47. 3Shape refused.

48. Throughout 2017, including at the International Dental Show in March 2017, Mr. Pascaud demanded that 3Shape agree to the joint venture.

49. 3Shape continued to refuse.

50. On November 14, 2017, Align filed four patent infringement lawsuits in the United States District Court for the District of Delaware, asserting 26 patents against 3Shape, alleging that 3Shape's Trios scanning system and Dental System software infringe Align patents,

and filed two Section 337 complaints with the United States International Trade Commission (“ITC”).

51. Align also filed four petitions for *inter partes* review with the Patent Trial and Appeal Board (“PTAB”) of the U.S. Patent and Trademark Office alleging patent invalidity of the claims of two of 3Shape’s scanner technology patents (patent ’551 and ’675). At this point, the PTAB has denied institution of three of the petitions.

52. In fact, at the Greater New York dental trade show in November 2017, Mr. Pascaud advised 3Shape that Align would not close down interoperability.

**Align Terminated the Scanner Agreement Despite Economic Incentives to the Contrary**

53. Align announced on December 20, 2017, that it would unilaterally terminate the Scanner Agreement with 3Shape effective January 17, 2018. As a result, the Trios scanner could no longer be used to submit digital scans for Invisalign in the United States.

54. Many dental professionals and the American Association of Orthodontists voiced their displeasure with the termination due to the quality and open system aspects of the Trios scanner. Align ultimately extended the termination date for a mere two weeks—to January 31, 2018.

55. Align had profited from its partnership with 3Shape. For example, in December 2017 and January 2018, Align received over 4,500 Invisalign cases per month submitted from the Trios scanner in the U.S.

56. In Europe, where Align has a lower clear aligner market share, Align continues to accept scans from the Trios scanner. Align similarly profits from Trios’ interoperability in Europe.

57. Around the time it terminated interoperability with the Trios scanner in the United States, Align also launched a discount program on the iTero scanner limited to current Trios owners. Align improperly used the Trios customer list obtained from 3Shape as a result of the Scanner Agreement. The program offers steep discounts on the iTero scanner conditioned on the dental professional meeting a target number of Invisalign orders over a three year time period. Dental professionals who fail to meet the minimum number of orders must pay back a third of the discount for each year they fail to meet the minimum quota.

58. Investment analysts saw through the anticompetitive purpose of the discount program, commenting that it “tie[s] GP dentists to [Align] for the next three years, a not-so-subtle effort on the part of management to lock these customer in for a fairly long time, in our view, just as clear aligner competition is likely set to rise . . . .”

59. Further, as of July 1, 2018 in the United States, Align has introduced the new Invisalign Go system, which it is marketing as an alternative and improved platform to obtain Invisalign clear aligners. Consistent with its broader scheme, the new platform can be accessed only from an iTero scanner.

**Align’s Termination of the Scanner Agreement Foreclosed Competition in the Clear Aligner Market and Furthers Align’s Efforts to Monopolize the Market For Scanners For Orthodontic Treatment**

60. By engaging in the conduct above, Align erected the necessary barriers to maintain its dominant market position. Dental professionals seeking to send full mouth digital scans to Align now have only one viable option: Align’s iTero scanner. That elimination of choice is not temporary; in the same November 2017 meeting in New York described above, Mr. Pascaud communicated to 3Shape that Align will not validate any additional intraoral scanners for use with Invisalign.

61. Effectively closing the system allowed Align to secure major deals with the two largest dental support organizations (“DSOs”) in the United States. On July 25, 2018, Align announced a multi-year deal with Heartland Dental, the nation’s largest DSO with more than 850 supported dental offices, to place iTero scanners in member dental offices, with the goal of placing iTero in 90 percent of supported offices nationwide by the end of the year. On the same day, Align also announced that it secured a deal with Aspen Dental, the nation’s largest branded DSO with nearly 700 locations, to equip all Aspen locations with iTero scanners over the next few years.

62. 3Shape bid for the Aspen Dental contract and scored the highest in the testing procedure. However, it was informed that it would not be selected, because it did not have an interoperability agreement with Invisalign.

63. The anticompetitive conduct described above has also enabled Align to rapidly increase its market share in the Market For Scanners For Orthodontic Treatment. Align reported an 84 percent growth in its scanner sales in North America in the first quarter of 2018. With the Trios scanner sidelined, the 3M True Definition and Sirona CEREC Omnicam scanners not sufficiently viable options for producing full-mouth digital scans, and any other current or potential manufacturers unable to secure interoperability agreements, there is nothing to stop Align from achieving a dominant position in the Market For Scanners For Orthodontic Treatment.

**Align Has a Robust History of Eliminating Competitors**

64. Align has a lengthy history of threatening to institute, and actually instituting, patent infringement litigation against its clear aligner competitors for the purpose of maintaining

its dominance. These smaller players in the clear aligner market lack the resources to defend against such litigation.

65. After one of Align's original founders left the company in 2004 to start his own competing clear aligner company, OrthoClear, Align sued for patent infringement. Align and OrthoClear settled the lawsuit in 2006. As a condition of settlement, OrthoClear was forced to sell its intellectual property to Align, effectively forcing OrthoClear to shut down.

66. Align has also filed similar litigation against SmileDirectClub ("SDC"), a small clear aligner manufacturer. Following the parties' confidential settlement in July 2016, SDC transferred 17 percent of its shares to Align and entered into a supply agreement pursuant to which Align would manufacture clear aligners for SDC's clear aligner program. In addition, SDC only uses Align's iTero scanner in its "SmileShops," locations for prospective patients to get a full mouth scan to evaluate eligibility for SDC's clear aligner.

**Align's Anticompetitive Conduct Has Injured 3Shape's Business**

67. Align has the specific intent to maintain its monopoly in the Clear Aligner Market and to attempt to monopolize the Market For Scanners For Orthodontic Treatment.

68. As a result of Align's anticompetitive conduct, 3Shape has been injured in the Market For Scanners For Orthodontic Treatment. 3Shape has experienced order cancellations and returns of the Trios scanners as a direct result of Align's conduct. For example, over 100 Trios scanners were returned due to Align's termination of the Scanner Agreement.

69. 3Shape's market share has fallen precipitously, as dental professionals have ceased purchasing the Trios scanner and turned to the iTero scanner. Despite offering significant incentives to orthodontists and other dental professionals on the purchase of a Trios scanner, 3Shape is unable to break through Align's anticompetitive barriers.

70. 3Shape also lost the opportunity to secure a deal to supply scanners to Aspen Dental, the nation's largest branded DSO with nearly 700 locations, solely because Align had terminated interoperability with the Trios scanners.

71. Align's conduct also threatens other aspects of 3Shape's business. Some Trios scanner owners have stopped using the Trios scanner altogether, including for dental restorative work.

72. 3Shape's injury is also inextricably intertwined with Align's anticompetitive conduct and harm to competition in the Clear Aligner Market. Injury to 3Shape was the essential component of Align's anticompetitive scheme of maintaining and enhancing its dominance in the Clear Aligner Market. To keep rival clear aligner manufacturers out of the Clear Aligner Market, Align effectively shut 3Shape out of the Market For Scanners For Orthodontic Treatment, thereby cutting off its clear aligner rivals' access to the dental professionals who order them. Injuring 3Shape was the very means by which Align could attack its clear aligner competitors; 3Shape's injury was necessary to Align's plan.

73. Align's conduct has harmed competition in both markets, by, among other things, excluding rivals, increasing barriers to entry, and imposing costs on rivals. This conduct makes it more difficult for rivals to compete, resulting in less consumer choice and higher consumer cost.

### **The Relevant Product Markets**

#### Clear Aligner Market

74. There is a relevant market for the manufacture and sale of clear aligners in the United States ("Clear Aligner Market").

75. Align is dominant in the Clear Aligner Market and has an over 80 percent share in that market.

76. Clear aligners are not interchangeable with traditional metal braces. Clinically, unlike traditional metal braces, clear aligners are not suitable for patients with major dental misalignment. In addition, because clear aligners are removable, they are more suitable for patients engaged in activities where traditional metal braces may pose material risk for dental injury—*e.g.*, contact sports.

77. Clear aligners also require much less time for treatment than traditional metal braces. As Align explains in its annual report, “[t]he average treatment [using traditional metal braces] takes approximately 12 to 24 months to complete” while clear aligners can reduce total treatment time by up to 50 percent. Align further notes that traditional braces “require[] several hours of direct dental professional involvement, known in the industry as ‘chair time,’” while clear aligners require significantly less “chair time” because the treatment course is planned out in advance and the patient can switch the individual aligners outside the professional’s office.

#### Market For Scanners For Orthodontic Treatment

78. There is a relevant market for the manufacture and sale of digital intraoral scanners used by dental professionals to generate full mouth scans for orthodontic treatment, including to order clear aligners in the United States (“Market For Scanners For Orthodontic Treatment”).

79. 3Shape’s Trios and Align’s iTero scanners compete against each other in the Market For Scanners For Orthodontic Treatment.

80. Align’s iTero had approximately 60 percent share of the Scanners For Orthodontic Treatment purchased in 2017. Following the termination of the Scanner Agreement,

Align's market share has increased significantly, with year over year growth of approximately 60 percent. 3Shape's growth has effectively stopped in 2018.

81. As described above, the True Definition and CEREC Omnicam scanners are not adequate substitutes for the iTero or Trios scanners and are not in the Market For Scanners For Orthodontic Treatment, nor do the other fringe players competitively constrain Align. And as also described above, Align has conceded that it will not agree to interoperability with additional manufacturers, so the barriers to entry for a new supplier are insurmountable.

82. Silicone Molds are not part of the Market For Scanners For Orthodontic Treatment.

83. Silicone Molds are cumbersome and unpleasant for patients. To take a dental impression using Silicone Molds, patients must bite into a rubbery and runny casting material for several minutes, waiting for it to set. During this process, patients are subject to unpleasant odor and taste, and may experience gagging. Patients may have to repeat this process more than once to get an adequate dental impression for clear aligners.

84. Dental professionals do not view Silicone Molds as substitutes for full mouth scans. It is generally accepted in the dental industry that digital scans using a scanner for orthodontic treatment are significantly more accurate and consistent than a silicone impression and more convenient. As such, Silicone Molds are less appropriate for use with clear aligners, which require extremely accurate full mouth scans, including to allow for real-time simulations of teeth movement to best plan a course of treatment. In particular, full mouth digital scans also offer flexibility and customization, because they allow dental professionals to use digital scans to simulate teeth movement and outcomes in software.

85. Although Align accepts Silicone Molds for Invisalign, Align has itself admitted that these impressions are less accurate, more costly, and more stressful for the patient. Indeed, in its 2017 annual report, Align stated “digital scanning is more efficient and precise and more comfortable for patients, compared to the mess, discomfort and subjective nature of taking physical impressions. The digitally scanned model is more accurate than a physical impression and substantially reduces the rate of restoration ‘remakes’ so patients are recalled less often and the appointment time for the restoration is shorter because of fewer adjustments which results in greater overall patient satisfaction.” Silicone Molds, therefore, are not a viable option for dental professionals or patients desiring Invisalign.

86. For both the Clear Aligner Market and the Market For Scanners For Orthodontic Treatment, the relevant geographic market is the United States.

**COUNT ONE**  
**Monopolization of the Clear Aligner Market (15 U.S.C. § 2)**

87. 3Shape repeats and reasserts each of the allegations contained in Paragraphs 1-86 as if fully set forth herein.

88. The relevant product market is the Clear Aligner Market, and the relevant geographic market is the United States.

89. Align possesses monopoly power in the Clear Aligner Market, including the power to control prices and exclude competition.

90. Align has willfully and intentionally engaged in conduct with anticompetitive effects (a) to unlawfully maintain and enhance its monopoly in the Clear Aligner Market, and (b) to lock dental professionals into using its Invisalign product and prevent its rivals from competing for clear aligner sales.

91. Align's anticompetitive conduct has effectively restrained and harmed competition in the Clear Aligner Market.

92. There is no legitimate business justification for Align's conduct.

93. Preventing dental professionals from using the Trios scanner and its open system to order clear aligners was the mechanism by which Align excluded its rivals from the Clear Aligner Market.

94. As a direct, foreseeable, and proximate result of Align's anticompetitive conduct, 3Shape has been injured in its business, including by losing existing and potential 3Shape Trios customers and sales.

95. 3Shape is entitled to damages and an injunction that terminates the ongoing violations alleged in this Complaint.

#### **COUNT TWO**

#### **Attempted Monopolization of the Market For Scanners For Orthodontic Treatment (15 U.S.C. § 2)**

96. 3Shape repeats and reasserts each of the allegations contained in Paragraphs 1-95 as if fully set forth herein.

97. Align has monopoly power in the Clear Aligner Market, including the power to control prices and exclude competition.

98. Align has willfully, knowingly, and with specific intent to do so, attempted to acquire monopoly power in the Market For Scanners For Orthodontic Treatment. Align has engaged in conduct with anticompetitive effects directed at accomplishing the unlawful objectives of controlling prices and preventing competition in the Market For Scanners For Orthodontic Treatment.

99. As a result of Align's conduct, including its decision not to interoperate with any other Scanners For Orthodontic Treatment, the barriers to entry into the Market For Scanners For Orthodontic Treatment are insurmountable.

100. There is a dangerous probability that Align will succeed in its attempt to monopolize the Market For Scanners For Orthodontic Treatment.

101. There is no legitimate business justification for Align's conduct.

102. As a direct, foreseeable, and proximate result of Align's anticompetitive conduct, 3Shape has been injured in its business, including by losing existing and potential Trios scanner customers and sales.

103. 3Shape is entitled to damages and an injunction that terminates the ongoing violations alleged in this Complaint.

**COUNT THREE**  
**(IN THE ALTERNATIVE TO COUNTS ONE AND TWO)**  
**(Injunctive Relief)**

104. 3Shape repeats and reasserts each of the allegations contained in Paragraphs 1-103 as if fully set forth herein.

105. Paragraph 18 of the Scanner Agreement ("Paragraph 18"), which by the Scanner Agreement's terms, survives its termination, provides:

18. GOVERNING LAW The validity, interpretation, enforceability, and performance of this Agreement shall be governed by and construed in accordance with the laws of Denmark. This Agreement and any dispute or claim arising out of it or in connection with it or its subject matter of formation, validity or termination (including non-contractual disputes or claims) shall be governed and construed in accordance with the laws of Denmark. Each Party irrevocably submits to the exclusive jurisdiction of the courts in Denmark to settle any dispute arising out of or in connection with this Agreement (including any non contractual disputes or claims).

106. The antitrust claims asserted by 3Shape in this Complaint do not fall within the scope of Paragraph 18. 3Shape is not required to bring the claims set forth in this Complaint in a Danish court.

107. However, to the extent that Paragraph 18 is interpreted as sufficiently broad to cover the antitrust claims set forth in this Complaint, Paragraph 18 would necessarily also cover all disputes between Align and 3Shape relating to the Trios scanner in U.S. fora.

108. Thus, if Align seeks dismissal of Counts 1 and/or 2 by claiming that Paragraph 18 is sufficiently broad to cover the antitrust claims set forth in this Complaint, then Align's pending claims against 3Shape, already filed in this Court and at the International Trade Commission, are equally subject to dismissal.

109. Specifically, the following pending actions initiated and/or being pursued by Align against 3Shape would be covered by Paragraph 18 if it were interpreted as sufficiently broad to cover the antitrust claims set forth in this Complaint:

- (a) The patent-related actions filed by Align against 3Shape in Federal District Court (Case Nos. 1:17-cv-01646, 1:17-cv-01647, 1:17-cv-01648, and 1:17-cv-01649 (D. Del.)) ("Patent Actions"); and
- (b) The ITC investigations in which Align is the complainant and 3Shape is the respondent that are currently pending at the ITC (Inv. Nos. 337-1090 and 337-1091) ("ITC Actions").

110. To the extent that Align seeks dismissal of Counts 1 and/or 2 above in reliance on Paragraph 18, the Court should issue an order dismissing the Patent Actions.

111. To the extent that Align seeks dismissal of Counts 1 and/or 2 above in reliance on Paragraph 18, the Court should enjoin Align from pursuing the ITC Actions.

112. This Court has the equitable power to require Align to withdraw its ITC Actions. In recent orders, both ITC administrative law judges declined to rule on the scope of Paragraph 18 and stated that 3Shape could instead seek injunctive relief from a district court. *Certain Color Intraoral Scanners and Related Hardware and Software*, Inv. No. 337-TA-1091, Order No. 23 at 10 (May 18, 2018)(“3Shape may ask a district court to enjoin Align from breaching [Paragraph 18] and order Align to withdraw its complaint in the ITC.”); *Certain Intraoral Scanners and Related Hardware and Software*, Inv. No. 337-TA-1090, Order No. 16 at 5, n.4 (May 30, 2018)(“3Shape may seek a ruling from a district court that [Paragraph 18] in the Scanner Agreement precludes Align from bringing this action in the ITC. Such an order could compel Align to withdraw its complaint. . . .”). In those proceedings, Align opposed application of Paragraph 18 to its claims against 3Shape.

113. Thus, if Align were to seek dismissal of 3Shape’s claims in this action pursuant to Paragraph 18, fundamental principles of equity, fairness, and consistent interpretation would require dismissal of Align’s Patent Actions and an order requiring Align to withdraw its ITC Actions.

### **PRAYER FOR RELIEF**

WHEREFORE, 3Shape demands a trial by jury and hereby respectfully requests:

- (a) Pursuant to 15 U.S.C. § 15, compensatory and trebled damages resulting from Align’s violations of the Sherman Act;
- (b) Pursuant to 15 U.S.C. § 26, permanent injunctive relief preventing Align from continuing the unlawful acts in violation of the Sherman Act;
- (c) Pre-judgment and post-judgment interest at the maximum legal rate;
- (d) 3Shape’s costs, expenses, and reasonable attorneys’ fees in bringing this action;

- (e) In the event that Align invokes Paragraph 18 to seek dismissal of the claims in this complaint, dismissal of Align's Patent Actions and an order requiring Align to withdraw and cease pursuing its ITC Actions; and
- (f) Such other relief as this Court may deem just and proper.

**DEMAND FOR A JURY TRIAL**

Pursuant to Federal Rule of Civil Procedure 38(b), 3Shape demands a trial by jury of all issues properly triable to a jury in this case.

*/s/ Geoffrey G. Grivner*

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Dated: August 28, 2018