PUBLIC VERSION

INVISTA'S OPPOSITION TO MOHAWK'S APPLICATION FOR A NEW SUBCLASS OF POLYESTER FIBER GENERIC NAME

I. INTRODUCTION

INVISTA S.à r.l. ("INVISTA") hereby opposes the Petition To Establish A New Generic Subclass (the "Petition") originally filed on February 21, 2006 and re-filed on September 7, 2006 by Mohawk Industries, Inc. ("Mohawk"), E. I. DuPont de Nemours ("DuPont") and PTT Poly Canada ("PTT Canada") (collectively, the "Petitioners"). The September 7, 2006 Petition (to which this opposition will refer) was officially reported in the *Federal Register* at 72 FR 48600 (August 24, 2007). These comments are timely filed by November 12, 2007.

INVISTA is part of a commonly owned group of companies (the "INVISTA Group"). The INVISTA Group is one of the world's largest integrated producers of man-made fibers including the production of intermediate chemicals, polymers and various fiber configurations of nylon, polyester and spandex. More information about the INVISTA Group can be found at its website www.INVISTA.com. The INVISTA Group brings together the former worldwide polyester business of Hoechst-Celanese and the former worldwide nylon and spandex business of DuPont.[1] The INVISTA Group is the world's largest producer of nylon fibers used in the production of both residential and commercial carpeting, with the capacity to produce approximately []^2 million pounds per year of Bulked Continuous Filament ("BCF") and [] million pounds per year of staple (short-length) fiber. The INVISTA Group's carpet fibers carry the well recognized brand names of STAINMASTER® (for residential settings) and ANTRON® (for commercial settings).

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1 INVISTA is not the successor to DuPont's production of the polymer giving rise to the fiber at issue in the Petition.

The INVISTA Group is not a producer of carpets, but rather sells nylon fibers to carpet mills, such as Mohawk, who can manufacture carpets from various types of man-made fibers. INVISTA estimates that carpets cover approximately []% of all residential square footage in the United States. Of that carpeted square footage, INVISTA estimates that approximately []% is made from nylon fibers, []% is made from polyester fibers and much of the remainder is polypropylene based fiber.

The INVISTA Group is the world's largest producer of spandex, a highly stretchy and retractable fiber now widely used in both apparel and personal care applications, such a diapers. The INVISTA Group sells its spandex under the LYCRA® and ELASPAN® brand names. The INVISTA Group is also the producer of a unique bi-component polyester fiber used in apparel applications, which has the generic sub-classification of "elasterell-p" because of its stretch and recovery properties.

INVISTA owns and operates the U.S. based assets of the INVISTA Group and manufacturers and sells both nylon carpet fiber and stretch apparel fiber in the U.S. As an integrated provider of the nylon fibers going into carpets installed in the United States and as part of the world's leading producer of high-stretch apparel fiber, INVISTA has a significant interest in ensuring that the carpets installed in U.S. consumers' homes and the apparel garments worn by U.S. consumers are properly labeled in a way which provides accurate information about the fiber content of both consumer items and which does not create unnecessary confusion or complexity.

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[2] Brackets indicate excluded non-public information.

II. THE PETITIONERS' BURDEN

Because polytrimethylene terephthalate ("PTT") has essentially the same chemical composition as defined by the Commission for polyester fiber, the Petitioners must be able to establish both: (1) that PTT has distinctive properties from generic polyester ("PET") that are important to the general public, *and also* (2) that those distinctive properties make PTT suitable for uses for which other polyester fiber products either cannot be used or would be significantly less well suited.[3] See 67 FR 7104 at 7105 (February 15, 2002). As discussed below, the Petition must be denied because it does not meet these requirements. The designation of a new polyester subclass for PTT will not provide useful information for U.S. consumers but, instead, will create unnecessary confusion and complexity in fiber designations.

III. SUMMARY OF THE ARGUMENT

Petitioners base their request for a new polyester subclass on the arguments that PTT offers distinctively different performance characteristics for both carpet and apparel products. For carpet products, Petitioners claim better performance with regard to: 1) durability and resilience; and 2) softness. For apparel products, Petitioners claim PTT offers better performance with regard to: 1) softness; and 2) stretch with recovery. The Petition fails to establish any significant differences in regard to any of these performance characteristics.

A. CARPET PRODUCTS

[3] The most common type of polyester used for apparel and carpet fiber applications is polyethylene terephthalate or "PET." This opposition will refer to generic polyester and PET interchangeably.

The Petition contends that PTT-based carpets are both more durable and softer than PET-based carpets. However, the Petition fails to establish a significant difference in these characteristics for the following reasons:

1) **The Petition does not provide a reliable or meaningful methodology for establishing a significant difference in durability.** The Petition purports to establish that, after being subject to certain wear testing, PTT-based carpets look better than PET-based carpets. The tests used by Petitioners are unreliable for a number of reasons: (a) the Petitioners compared finer, lighter weight PET fiber with thicker, heavier weight PTT fibers, thus, making a meaningful comparison impossible; (b) the Petitioners' light-weight testing is not the type of rigorous testing that reveals significant differences in fiber durability; and (c) the reported differences in durability are too modest to be relevant to consumers. In fact, INVISTA's own test examples illustrate that there is likely no meaningful difference between the two fiber types in durability.

2) **The Petition's presentation on softness lacks any method for testing the proposition that PTT-based carpets will be perceived as softer than PET-based carpets by the general public.** Rather than submitting any survey or test results as to how soft the PTT fibers actually feel in a carpet application, the Petition presents irrelevant laboratory test results regarding fiber "deflection" properties, a test of no significance to consumers in evaluating the softness of carpets. The absence of any consumer studies or surveys comparing the subjective experience of carpet softness means that the Petitioners have presented no evidence to substantiate their claim that PTT fibers result in softer carpets.

3) **The Petition fails to address how different manufacturing techniques affect softness.** In particular, the Petition fails to establish that the use of PTT fibers is essential to

achieve a particular level of softness and to exclude the possibility that the same level of softness can be achieved using PET fibers and different manufacturing techniques.

B. APPAREL PRODUCTS

1) The Petition fails to present the results of any reliable testing methodology demonstrating that PTT fibers "recover" from stretching better than PET fibers. The Petition describes a single comparison in which particular PTT and PET fabrics were subjected to a high stretching force and then retracted. The Petition argues that, while the PET-based fabric stretched more at a given force level, it showed a slightly greater permanent level of deformity from its original shape than the PTT-based fabric. However, Petitioners' test failed to establish: (1) that the amount of force used in the test was relevant to the amount of force usually applied to garments in real-life situations; (2) that the slight differences in retractability between the two samples was meaningful to consumers; or (3) that PTT fabrics result in less distortion than PET fabrics for identical stretch distances.

2) The Petition fails to demonstrate that PTT fabrics are softer than fabrics made with PET. As in the case of carpet fibers, the Petition fails to present any reliable methodology for testing the experience of softness in garments made with PTT fibers that is relevant to consumers.

3) The Petition fails to address how different manufacturing techniques affect softness. Again, the Petition fails to establish that the use of PTT fibers is essential to achieve a particular level of softness and to exclude the possibility that the same level of softness can be achieved using PET fibers and different manufacturing techniques.

IV. RELEVANT HISTORY

The use of polyester fibers in the manufacture of carpets has had a long and troubled history, which is relevant to the Commission's consideration of the Petition. In the late 1970's, the carpet industry, led by mills such as Mohawk, began to tout polyester as a new and exciting carpet fiber. To INVISTA's knowledge, the carpets manufactured and sold by Mohawk were labeled then as "polyester," consistent with the Textile Fiber Products Identification Act (the "Act") and the Commission's implementing regulations. However, polyester carpeting, which looks very similar to nylon fiber carpet when installed, received poor in-use performance ratings from consumers within a couple of years after installation. Consumers found that polyester carpets were not as durable as nylon carpets and that they had a tendency to attract oil-based soils and stains. Both of these deficiencies are functions of the differences in the chemical properties of polyester and nylon. Nylon fibers are stronger and tend to resist oil-based soiling and staining.

Because of these inferior performance characteristics, carpets made from polyester began to be priced at lower "value in use" prices than carpets made from nylon. In addition, polyester carpets became virtually extinct in higher-traffic commercial settings. Polyester carpets continue to represent nearly one-quarter of residential carpets, but they generally continue to be priced lower than nylon carpets of comparable of weight and construction. Consumers suffered significant harm in purchasing early generation polyester carpet because they failed to appreciate that these carpets would not perform as well as carpets made of other fibers, particularly nylon. By now, however, the industry has a general understanding of the performance of polyester carpets relative to comparable nylon carpets. It is important that the Commission consider this experience before creating a new polyester subclass designation, which could lead to a similar phenomenon of unwarranted heightened consumer expectations of carpets made with PTT fibers.

In 2005, Mohawk began to manufacture and advertise carpets made from PTT fiber. Based on advertising and in-store displays obtained by INVISTA, it appears that Mohawk assiduously avoided the use of the generic term "polyester" in connection with consumer advertising, storeroom displays and labeling for these products, as required by the Act and the Commission's regulations. (Some examples of these advertisements, displays and labels are attached as Exhibit A.) The reason for this failure to use the proper generic classification seems obvious. Mohawk (and DuPont, the maker of the PTT polymer used by Mohawk) presumably wanted to avoid the price-lowering effects of identifying the underling PTT fibers as "polyester." Instead, despite now admitting to the Commission that PTT has the same general chemical composition as polyester, Mohawk apparently chose to ignore the Act and to identify the PTT fiber by various terms (branded and not) which were not recognized by the regulations. Indeed, for over a year, Mohawk (and its polymer backer, DuPont) appeared to act as if this Petition had already been filed and approved by the Commission. This failure to comply with the Act should be given weight in the Commission's consideration of the Petition and should weigh heavily against granting the Petitioners' tardy request.

V. ARGUMENT

A. CARPET FIBER APPLICATIONS

1. PTT has the same general composition as PET.

INVISTA agrees with the Petitioners that PTT has the same general chemical composition as the Commission has established in its regulations defining "polyester." See 16 CFR Part 303.7(c).

2. PTT and PET have the same performance for the vast majority of performance characteristics relevant to carpet consumers.

Even if it is assumed that PET and PTT fibers perform differently with regard to the characteristics identified in the Petition, these represent only a small portion of characteristics that are relevant to carpet consumers. The Petition argues that out of fourteen carpet performance characteristics which are significant to consumers, PTT fibers perform better than PTT fibers on three. See Petition pp. 3-4. Of the top ten carpet performance characteristics, PTT allegedly performed differently on two, or 20% of the most important factors. INVISTA submits that a Petition alleging performance differences on such a small percentage of factors important to consumers is fatally flawed. The Commission cannot conclude that PTT fibers are "significantly better suited" than PET fibers in carpet applications since the great majority of performance characteristics are the same.

The creation of a new generic subclass will invariably create consumer expectations that the products made with the new fiber are significantly different from products made with polyester. They are likely to expect that products made with PTT fibers perform differently on far more than 3 out of 14 performance characteristics. Consumers and retailers will be forced to learn through trial and error that PTT performs the same as PET in at least 11 of the 14 key attributes.

3. The Petition fails to substantiate its contention that PTT fiber makes for a more durable carpet than does PET fiber.

Petitioners attempt to establish that carpets made from PTT are more durable/resilient than carpets made from PET using two different, but similar, methods: (1) the Hexapod Wear Test; and (2) the Performance Appearance Rating ("PAR") Test. The Hexapod Wear Test involves the use of a mechanical device (a ball in a cylinder covered on the inside with carpet

samples), while the PAR test involves a sample carpet in a clean environment and subject to limited foot-traffic. Both rely upon a comparison of the visual appearance of the carpet sample after testing compared to the appearance of carpet in standardized photographs published by the Carpet and Rug Institute ("CRI"). These photographs represent a scale of 1 to 5 in appearance (with 1 being poor and 5 being "same as new").[4] The Petitioners' results are wholly insufficient to establish any meaningful difference between PTT and PET fibers in terms of carpet durability or resiliency.

i) Petitioners' testing for differences in durability and resilience was not methodologically sound because it failed to test comparable samples.

The first flaw in Petitioners' methodology is that it did not use comparable fibers in testing durability. A critical characteristic of any man-made fiber is its thickness, which determines its weight. "Denier" is the technical term for the weight of a filament or yarn which is 9,000 meters long. A filament is a single strand of a fiber as extruded from the mechanical process which pushes a melted polymer through a spinneret and allows the heated strand to cool. Higher denier per filament means greater weight, which means a thicker filament. In the fourth column of Appendix A to the Petition ("carpets used for performance tests"), the Petitioners state that durability testing was done using carpet fibers of different dpf ("denier per filament"). The Petitioners chose to test carpets made with heavier PTT filaments (18 dpf), while using fibers made of lighter 15 dpf for the PET samples used in their tests. The inclusion of even lighter weight 12 dpf nylon carpet samples helps to explain the rather unusual and unexpected results

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[4] CRI publishes the photographs representing the visual appearance standard for approximately six different types of basic carpet construction. The current set of photographs was last published in 2005 and includes some images dated 2003. An exemplar set of the photographs (for saxony cut-pile carpets), along with a copy of the CRI Test Method, is assembled as Exhibit B.

that tested carpet samples made from PTT fiber appear not only to look better than carpets made from PET fiber after being subject to wear, but also are reported to look as good as carpets made from nylon fibers. Both results are invalid. Petitioners have compared apples (18 dpf PTT carpets) with oranges (15 dpf PET carpets) and grapes (12 dpf nylon carpets).

Petitioners cannot salvage the PTT to PET portion of their results by claiming that both sets of samples were made from approximately similar yarn weights (the "denier" column in Appendix A).[5] The weight and construction of the individual filaments being twisted into the yarn will have a significant bearing on the appearance of a carpet after being subject to wear. Although the total fiber weight may be the same, the performance of the individual filaments is the underlying driver for the performance of the carpet. In this case, Petitioners compared a PET carpet with a PTT carpet that was made of PTT filaments that were 20% heavier than the PET filaments. For tests which are based solely on visual appearance, the PET carpets were virtually designed to fail—made from the lighter filament which were then twisted together for less-than-optimal yarn denier. Indeed, the fact that the lightest weight nylon filament samples performed as well as the much heavier PTT filament samples is a testament to the conventional wisdom that nylon fiber is the most durable man-made fiber in carpet applications.

ii) Petitioners' test results do not show a difference in durability/ resilience that is relevant to consumers.

Even if the results are considered despite the comparison of fibers with different weights, they do not establish a difference in durability or resiliency that is relevant to consumers. The Petitioners describe the CRI appearance rating scale correctly as ranging from 1 (severe deterioration) to 5 (no change in appearance from new carpet). See generally the CRI web site

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[5] The third column in Appendix A provides the denier for the "yarn" used in the tested carpet fibers. The yarn refers to a number of individual filaments (or fibers) which are twisted together.

description of these scales at: http://www.carpet-rug.org/residential-customers/selecting-the-right-carpet-or-rug/quality-and-performance/carpet-performance-rating.cfm. However, they fail to explain that the scale is not linear between 1 and 5. See Petition p. 14. The ratings are based on visual comparisons with standardized photographs. These photographs correspond to changes that are scaled in half point intervals, where the intervals between the lower numbers constitute greater differences than intervals between higher numbers.[6] Consequently, the difference between the photographic standard for a carpet representing a 1.0 and a carpet representing a 1.5 would reflect the most significant changes in appearance for any single half-point interval. That differential is substantially more significant than the difference between the photographic standard for a carpet representing a 2.0 on the scale and a carpet representing a 2.5. The difference in appearance between 4.5 and 5 is virtually indistinguishable to laypersons. Indeed, in the industry it is widely accepted that any rating at 4 or above is deemed to be nearly identical to the 5 rating, and any rating of 3 or above is considered an "acceptable" appearance.[7]

The most that can be said for the results of the Petitioners' Hexapod Wear Test and PAR test is that specially trained experts were able to distinguish subtle visual differences between heavier-filament PTT carpets and lighter-filament PET carpets. Even if the filament denier were comparable, the results would be marginal at best. See Figures 9-11 (Hexapod Wear Test) and 12-14 (PAR test), pp. 14-17. At the lowest number of wear cycles, both the PET and PTT carpets achieve "acceptable" results, separated by less than one full point interval (between 3 and

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6 The CRI photographic standards are based on this paradigm. This means that purported distinctions in half-point increments above 3 become increasingly meaningless to the general public. A reference set of the CRI visual samples is included along with this Opposition.

7 Not insignificantly, these types of visual appearance tests are performed by individuals specifically trained to spot subtle visual differences, which would not be the case for most consumers.

4). See Figures 9 and 12. At the middle number of cycles, the difference remains within the full point interval, hardly a definitive finding regarding durability. See Figures 11 and 13. Only at the highest number of wear cycles, and only in the Hexapod Wear Test, do Petitioners' results show a difference greater than one full point interval and a PTT sample that remained acceptable. See Figure 11. In the PAR test at the highest cycles, both the PTT and PET are deemed unacceptable and are within one full point interval. Again, the results are ambiguous at best and (even assuming fiber parity) are not at all a definitive basis upon which to conclude that PTT fibers would be viewed by the carpet-buying public as more durable or resilient than PET fibers.

The Petitioners also submit Figures 15a and 15b as purporting to show visual test results using the Hexapod Wear Test. In this case, it appears that the fibers used for comparison were the same weight. However, the results showed that the PTT and PET performance was essentially indistinguishable for a normal grade carpet. The data for the 35 oz. carpets suggests an indistinguishable difference between the products (3.5 vs. 4.0), and even the PET fiber carpet is rated acceptably, above 3 on average. See Figure 15b (p.19). These differences would not be visibly significant to consumers using these products in their homes.[8]

iii) More reliable testing shows that there are no significant differences in durability.

The Hexapod Wear Test, as modified by the Carpet and Rug Institute at the request of Mohawk and others, now utilizes an impact ball that is lighter than the one used in previous

[8] While the difference in visible wear appears more pronounced in the 25 oz. carpets, the tested carpets do not present meaningful test subjects. Because 25 oz. per square yard is below the Federal Housing Administration minimum face weight for carpets (to qualify for installation in a home backed by FHA loan guarantees), the purported differences at this unusually light-weight grade should not be relied upon by the Commission. See Petition, Figure 15a (p. 18).

testing.[9] This lighter-weight ball provides a less-discriminating test of the performance of the carpet products than the previous heavy ball test. This heavy-ball test, called the Vettermann Drum test, was the industry standard for more than twenty years. INVISTA has found the Vettermann Drum test to be a more reliable predictor of real-world, on-the-floor performance, since it more clearly separates poor-performing carpets from good-performing ones. In contrast, the light ball Hexapod Wear Test yields results that imply that a wide range of carpet types perform satisfactorily (at or above 3 on the visual test scales), a finding that is inconsistent with actual experience in consumers' homes.

In order to use a more reliable test for durability, INVISTA compared carpets made with PTT with carpets made with PET, using the more rugged Vettermann Drum test. This test reveals obviously poor visual performance in a manner that is more consistent with consumer experiences with residential carpets. The attached chart illustrates samples of similar styling having a face weight of approximately 60 oz. per square yard and densities of approximately 3000 (that is, comparable constructions). Three of the styles are PET and one is PTT. Again, a rating of 3.0 is generally considered the approximate level below which the appearance is judged "unacceptable." Note that three of the four carpets (including the PTT sample) "pass" the light ball Hexapod test, while all four definitively "fail" the Vettermann Drum test. This suggests no

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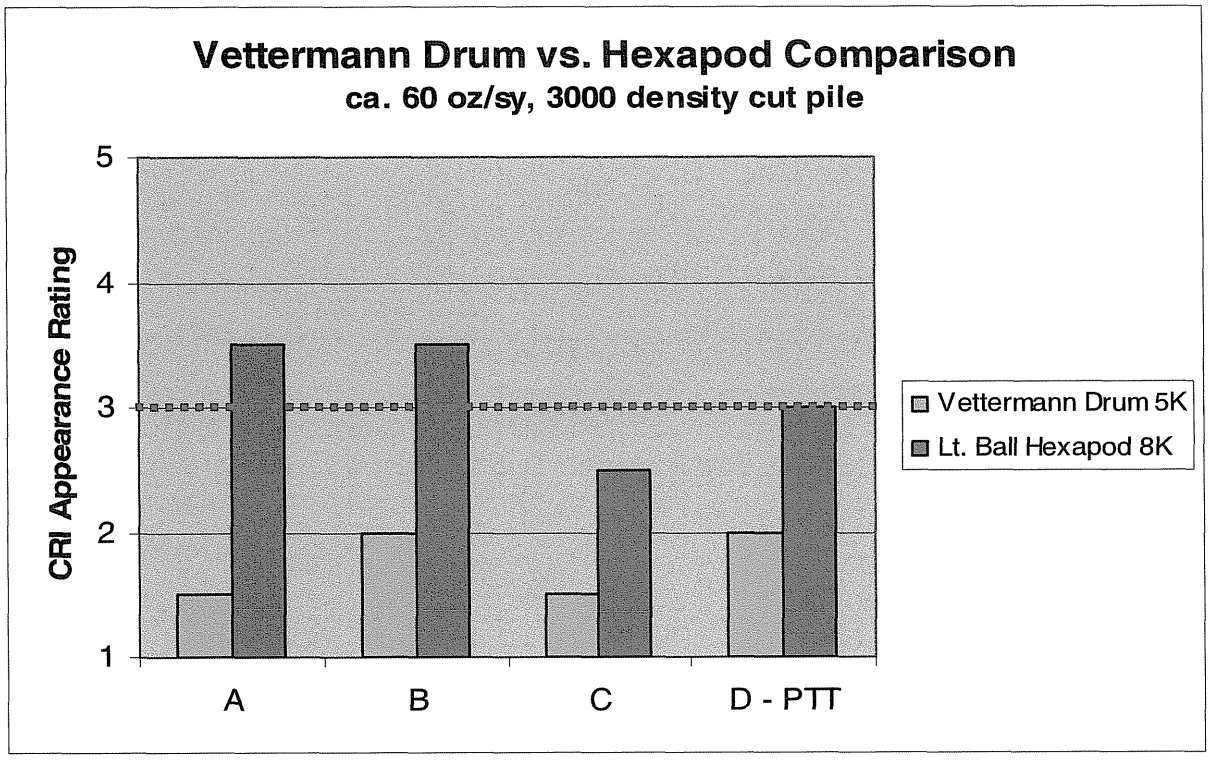
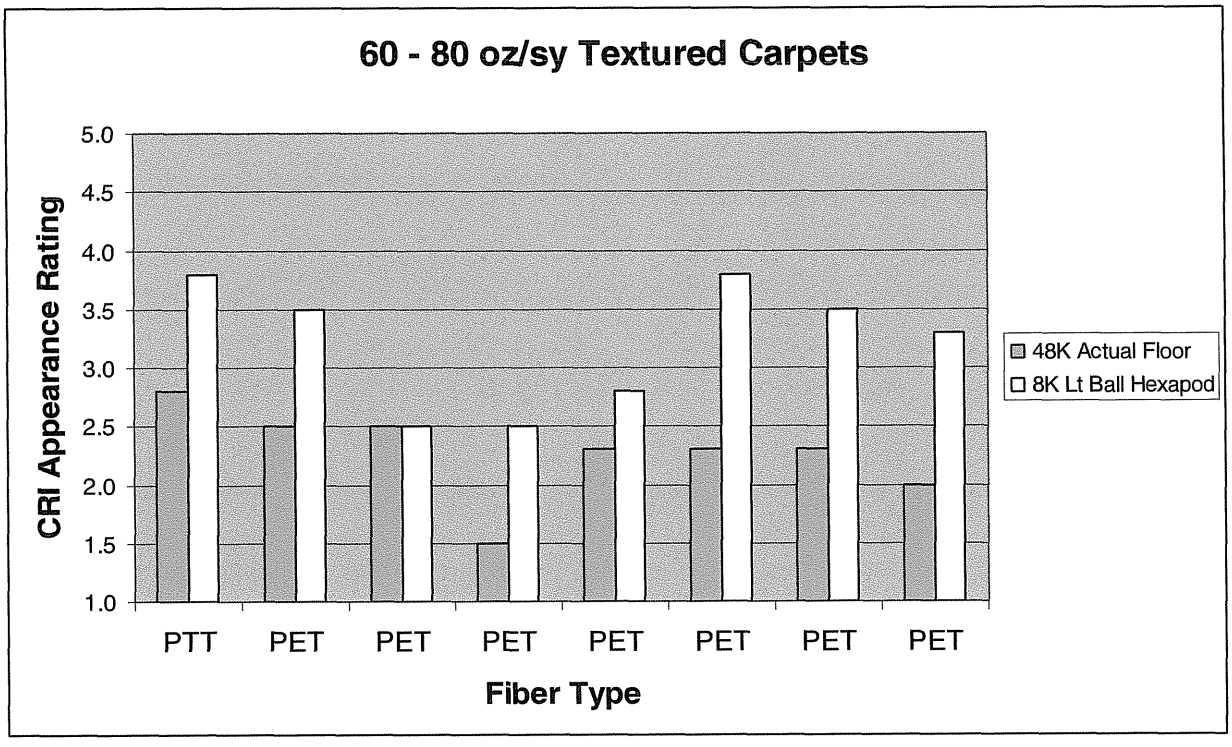
[9] Carpet producers and producers of non-nylon carpet fibers convinced CRI to adopt less demanding testing methods. The proponents of the lighter-weight test wanted to achieve adequate visual performance results (above 3) for less durable carpet fibers such as polyester and polypropylene. And, in fact, this is exactly what is revealed in the Petition. Under the Hexapod Wear Test, PTT carpet is able to achieve an average rating of 3 or above even at very high test cycles. Indeed, even the light-weight PET carpet used in Petitioners' sampling achieved an acceptable average 3 rating in the base cycle test. A lightweight ball test is not adequate to reveal meaningful performance differences across different fiber types.

meaningful difference between the PTT carpet and the PET carpets using a rugged wear and tear test, which is more likely to be meaningful for consumers.



INVISTA also compared PTT carpets to PET carpets after real-world traffic exposure.[10] The attached chart shows results of comparing a PTT sample to comparable PET samples after being subjected to real world foot traffic for approximately one month, accumulating a total traffic count through the test space of 48,000 walks by the random occupants of the commercial space. This is believed to correspond to approximately 3 years of use in higher-traffic zones of a typical home occupied by a family of four. The same carpet styles had also been exposed to light-weight Hexapod testing. The results confirm the conclusion that most samples of both PET and PTT carpets passed the lighter weight test, but all failed to perform acceptably (above 3.0) in the actual foot traffic test.



These test results demonstrate two important findings. First, when subjected to a heavy-duty test designed to mimic real-world wear and tear, none of the PTT or PET carpet samples in these tests yielded an "acceptable" appearance rating (3.0 or above). Second, when subjected to lighter-weight tests, most of these samples performed in indistinguishable ways, generally rating in or near the "acceptable" range. In other words, PET and PTT carpets of comparable construction tend to be deemed "acceptable" after light testing, and both will be "unacceptable" after heavy testing. Appreciably superior performance in the more heavy-duty tests commonly available would tend to support a contention of "distinctive properties of importance to the general public." That standard is not met here.

INVISTA has conducted additional appearance testing on PTT and PET carpets. Among carpet styles, frieze products (carpet styles using highly twisted yarns that create a very uneven,

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[10] INVISTA conducts its traffic exposure tests by placing carpet samples in commercial space. The Petitioners' walking test is a more sterile laboratory experiment with back and forth steps across samples arranged in a particular order. See Petition at p. 15.

short-shag appearance on the surface) are known to be among the most durable and forgiving in traffic-abusive environments. In INVISTA studies of purchased PET and PTT frieze-style carpets using severe tests such as the 5000-cycle caster chair (60 kg) test, or a proprietary laboratory-based test intended to simulate multiple-years' abuse of carpets on residential stairs, both PET and PTT carpets performed very poorly. A selection of seven different PET products each yielded a 5K caster chair CRI rating of 1.0 (the lowest possible score), the same rating as a PTT carpet.[11] A comparison of these same carpet products using the simulated stair test yielded composite ratings of 1.0 to 1.1 for the PET samples, and 1.4 for the PTT comparison sample – results that also indicate very poor performance. In contrast to these polyesters, a nylon frieze carpet yielded ratings of 3.3 on the 5K caster-chair test and 2.8 on the simulated stair test. The PTT performed very much like the PET and unlike the nylon in these more rugged wear tests.

INVISTA's internal testing includes controls which put the PTT and PET results in perspective. When subjecting nylon carpeting to similar wear testing, visual appearance results suggest a meaningful and observable difference between the way nylon carpets perform and the way comparable PTT and PET carpets perform. These types of results represent the type of differences which would provide a basis for establishing that one fiber type (nylon) is more durable or resilient in a carpet application setting than polyester fiber types (PTT and PET). The following chart shows the visual appearance results of a comparison of comparable PTT and nylon carpets on the Hexapod, Vettermann and walking tests. This comparison reinforces the conclusion that, while PTT carpet can pass a light weight test, it does not perform acceptably in either of the heavier tests.

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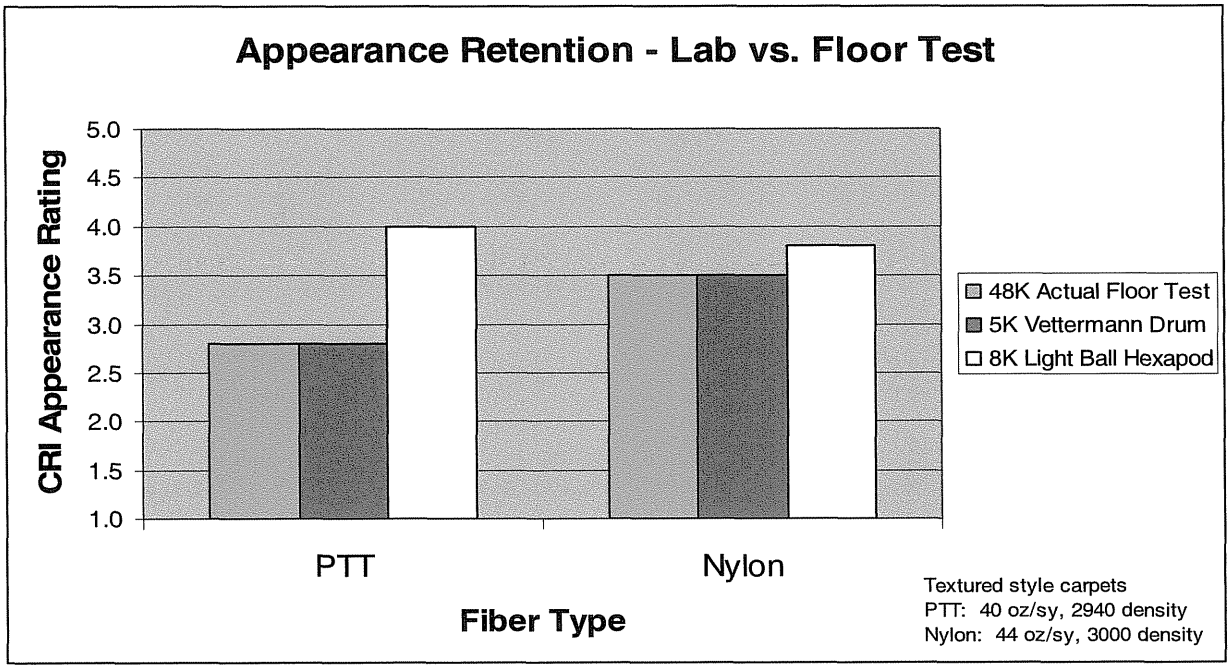
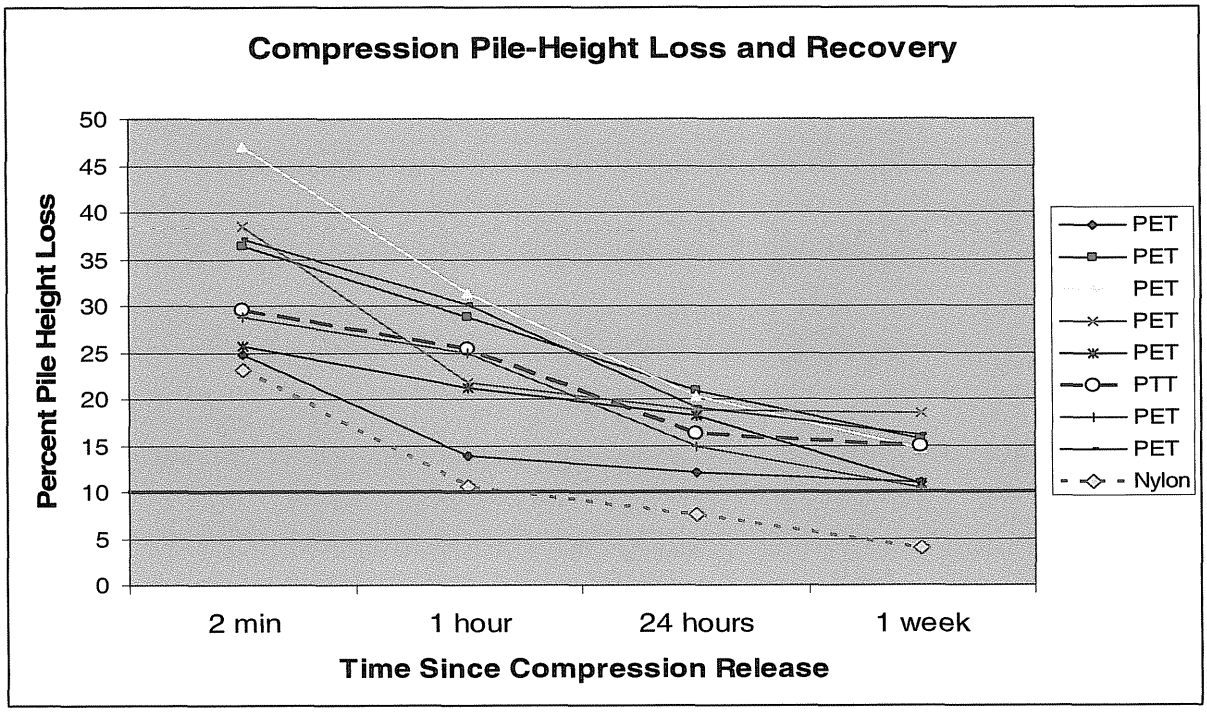
[11] This type of chair caster test explains why polyester is now extinct as a fiber type for carpets used in commercial settings.



Finally, there is a more direct and objective test for carpet durability and resilience, which does not rely on somewhat subjective assessments of what a carpet "looks like" after wear. For example, the extent to which carpet fibers recover after compression is one of the most obvious objective tests for how durable or resilient a carpet would be under real-world foot traffic.[12] INVISTA's more objective tests for pile height loss and recovery found no performance differences between PTT and PET carpets. Pile height loss of less than 10% would be essentially invisible in the home environment. Tests of various 50 oz. carpets (numerous PET carpets, one nylon and one PTT) showed that similarly-constructed PTT and PET carpets behave very similarly. However, again, a comparable nylon carpet performed differently from, and appreciably better than, the PTT and PET carpets, where only the nylon carpet achieved less than 10% pile height loss. The PTT sample performed in the middle of the PET pack. The following figure illustrates such a comparison:



The PTT product performs essentially identically to the PET products in this test.

In summary, the Petitioner's failed to demonstrate any significant difference in durability or resilience in PTT carpets for the following reasons:

(1) The Petitioners compared lower denier PET carpet fibers with higher denier PTT fibers apparently optimized for use as carpet fibers. Thus, their test results are not capable of proving their contention that PTT carpet fibers have superior durability or resiliency than PET carpet fibers.

(2) The results of visual comparison tests did not show differences that are relevant or meaningful for consumers.

(3) More useful and relevant tests of durability showed no meaningful differences between PTT carpets and comparably constructed PET carpets, while the same tests did show

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[12] Indeed, this compression recovery characteristic appears to be one of the durability/ resiliency factors for which Petitioners contend there is an appreciable difference between

meaningful performance differences between nylon carpets and polyester (PET and PTT) carpets.

In short, the Petition establishes no significant benefit to consumers in increased durability from choosing PTT carpets over PET carpets. On the other hand, consumers have a meaningful choice between polyester and nylon carpets, since tests clearly show that nylon carpets offer significantly better durability. Thus, a new polyester subclass designation for PTT-based carpets will generate far more confusion for consumers than helpful information. Consumers are likely to assume that PTT carpets offer significantly better durability than other polyester carpets, when, as a practical matter, durability is essentially the same in carpets made with either fiber.

4. The Petition fails to substantiate its contention that carpets made from PTT fibers will feel "softer" to consumers than carpets made from PET fibers.

Petitioners identify softness as the other performance characteristic for which PTT fiber is said to be superior to PET in carpet applications. However, nowhere in their Petition do they actually present any tests comparing the softness of carpets using PTT and PET that would be relevant in evaluating consumers' actual experience.

The experience of softness in carpets is the result of a subjective determination by individuals through direct contact. The Petition presents only a test of the measurement of the force required to bend a horizontal fiber. See Petition at pp. 19-21. The Petition provides no evidence that this method of testing for softness is widely accepted in the industry or that it has been endorsed by any independent organization or researcher. In fact, this methodology is inadequate to test softness for a number of reasons. First, even assuming that the measurement

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carpets made from PET fibers and carpets made from PTT fibers. See Petition p. 4.

of force needed to deflect a horizontal yarn is a meaningful test for softness, the Petition nowhere explains why the force levels used in the testing are relevant to a consumer's experience of softness.

Second, softness is a property that consumers most commonly associate with the feel of the tips of fibers making up the carpet pile. Softness can be improved by use of extrusion techniques that have nothing to do with a fiber's horizontal tensile properties. Manufacturing parameters are optimized to achieve the goals of the fabric designer, including softness of the carpet pile. There is no demonstration in the Petition that the use of PTT fibers is required to achieve softer carpets. Instead, the Petition ignores production techniques which could be employed using PET fibers to optimize the feel of the tips of the carpet file and focuses exclusively on the horizontal bendability of the underlying fiber.[13]

Finally, nowhere do the Petitioners present the type of evidence one would expect to demonstrate softness, such as evidence of "hand" (or touch) surveys among carpet consumers. Instead, Petitioners mistakenly equate the tensile properties of a fiber as a softness characteristic. This is simply not what softness means to consumers. In fact, softness means precisely what Petitioners say it does not mean: feel upon "direct skin contact." See Petition at p. 19. That characteristic is judged by running a hand across the tips of the finished carpets. In short, the Petition wholly fails to establish that carpets made of PTT will feel softer to consumers than carpets made of PET fibers. Thus, the Petition fails to establish a softness property which would be discernable by the general public.

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[13] In fact, the Petition at Figure 16, p. 20, suggests that carpets made from nylon would be the least soft according to the stress-strain test result. The unreliability of these results is shown by the fact that carpets made with INVISTA's Tactesse® nylon fiber have been recognized as the softest carpets in the industry. These facts also suggest that the manufacturing techniques designed to affect fiber softness, as actually experienced by consumers, are more significant than horizontal bendability.

5. The Petitioners identify other chemical or molecular differences between PTT and PET fibers which, even if technically true, are of no observable importance to the general public.

The Petition contains a lengthy discussion of the molecular differences between PET and PTT fibers, without establishing that these differences result in different carpet performance characteristics, much less performance differences which would be appreciated by the general public. The Commission should recognize that many, if not most, of the differences between PTT and PET described in the Petition have no relationship to how the fibers would perform in carpets installed in the homes of consumers. Consequently, we do not address this lengthy chemistry discussion further. In the event that the Commission would benefit from a technical explanation of the fallacies of their molecular structure arguments, INVISTA would be happy to provide it.

B. APPAREL APPLICATIONS

The Petitioners request that the Commission allow the use of a generic subclass name for PTT fibers in apparel applications. See Petition at p. 2. This request should also be denied. As in the case of Petitioners' arguments relating to carpet applications, the request is based on a claim of performance in regard to only two characteristics. The Petition asserts PTT fibers used in apparel applications results in: 1) improved stretch and recovery; and 2) greater softness. As part of the world's largest producer of spandex—a fiber selected precisely for both its stretch and recovery properties in apparel applications—INVISTA opposes the Petition's request for a new generic subclass name for polyester where PTT fiber is used in apparel applications.

1. DuPont's Prior "Elasterell-p" Proceeding.

Before addressing the merits of the Petition in connection with its apparel fiber request, it is relevant to refer to the Commission's Elasterall-p proceeding. In 2001, DuPont requested a

new subclass of polyester fiber to be called "elasterell-p." The request was ultimately granted. See 67 F.R. 70838 (November 27, 2002).[14] Elasterell-p is actually a bi-component fiber composed of PTT and standard PET. The resulting bi-component fiber, after being exposed to heat, will exhibit elastomeric properties because of the divergent effects of the heat upon the two types of polyester fibers.

DuPont's position in 2001-2002 was that the resulting bi-component fiber was so qualitatively different from polyester as to deserve a new subclass name under the Act. In that 2001-2002 proceeding, however, DuPont never suggested that PTT fiber, one of the two components, should itself be considered a distinct subclass of polyester fiber. In fact, in proposing the new designation, DuPont submitted data suggesting that the new bi-component fiber had qualitatively better stretch and recovery than both standard (2GT or PET) polyester and PTT (3GT) polyester. See 67 F.R. 7104 (February 15, 2002) at 7107 ("Recoverable Stretch" Graph) and 7109 (Fiber Properties Chart). While DuPont's position at the time was that PTT and PET were different forms of polyester fiber, there was no contention that the PTT itself was so superior in terms of stretch and recovery or softness properties that it should qualify for a new polyester subclass name.[15]

2. Stretch with Recovery.

The second flaw in Petitioners' arguments regarding apparel products is that its testing for stretch and recovery was never adequately applied to garments. Petitioners maintain that

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[14] INVISTA currently owns the technology to produce elasterell-p, and produces the product in Taiwan, largely for the European and Asian apparel industry.

[15] Indeed, at the time, DuPont took the position that "a yarn having 35% recoverable stretch produces a high quality stretch fabric, while a yarn having a recoverable stretch of 28% does not produce a high quality stretch fabric." 67 F.R. at 7108. The data submitted at the time showed that both 3GT (PTT) and 2GT (PET) fell below the 28% threshold, which suggests that neither would produce a "high quality stretch fabric."

certain knitted fabrics made with PET fibers will stretch farther than similar fabrics made with PTT fibers when subjected to the same pull force (or tension). See Figure 17(a). In other words, Petitioners concede that PET fabric is actually more "stretchy" than a similar PTT fabric. Petitioners argue that, because the PTT fabric stretched less, it had better "recovery" (or less permanent distortion) than the PET fabric, which stretches farther, but experienced greater permanent distortion in retracting after the tension release. See Figure 17(b).

The first flaw in this analysis is that the Petition fails to make any connection between the amount of tension used in the test to the tension applied in actual consumers' use of garments. Thus, if garments are rarely put under such strain, the fact that a garment made with PTT fibers would recover better is wholly irrelevant. If both PTT and PET fibers will recover similarly when put under more modest tension, such as the deflection caused by the bending of a knee or elbow, then the recovery at higher tension levels is not relevant. The Petitioners' methodology fails to present a test which would substantiate the claim of how the PTT fiber is superior in the stated application.

Second, the Petition fails to explain why the observed difference in distortion is relevant to consumers. See Figure 17(b) at p. 22. The Petition reports that a certain PET knitted fabric showed a 9% permanent set, while a certain PTT knitted fabric showed a 6% permanent set, at a particular force load. There is no explanation as to how or why this small difference would be meaningful to a consumer. This type of hand-picked test result showing some recordable difference can hardly be sufficient to qualify PTT as an entirely new generic polyester subclass for all apparel labeling purposes.

Third, the Petitioners fail to establish that recovery would be better in the case of PTT fabrics for apparel that was stretched to the same degree as PET fabrics. The test described

above made a comparison at identical force loads, but not at identical stretch distances. Consumers, on the other hand, are concerned about the fit of fabrics, more than the force required to stretch them. Thus, they are concerned with the recovery of fabrics when they stretch them a particular distance. The Petition fails to make this comparison and, thus, does not demonstrate that recovery of PTT fabrics would be superior to recovery of PET fabrics.

Fourth, the Petitioners' test results suggest that consumers might experience confusion in understanding the performance that they can expect with PTT-based apparel. The Petition suggests that at a set force, a PTT knitted fabric will stretch less than a PET knitted fabric. Thus, based on the Petitioners' test results, consumers could find PTT garments to be more rigid than garments made from PET fibers. If Petitioners claim that garments made with PTT fibers have "greater stretch *with* recovery" (as suggested by the Petition), consumers may understand the claim to mean that PTT-based apparel stretches more easily than ordinary polyester – a claim that would apparently be false.[16]

3. Softness

The Petition suggests that apparel made from PTT will be softer than apparel made from PET. However, the Petition relies upon the same deficient methodology to test softness discussed above with regard to carpet applications. Softness in apparel applications is even more obviously based on consumers' subjective experience of contact with the fabric. Thus, tests relying on consumers' subjective assessments of softness would be far more reliable than discussion of the force used to bend fibers horizontally. Similarly, as discussed above with

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[16] The Petition also includes confusing data suggesting that certain other woven fabrics made from PTT fibers are more stretchy than woven fabrics made from PET fibers, while both exhibit the same level of stretch recovery. See Petition, Figure 18. The data are not only confusing but unreliable since the Petitioners plainly explain that the construction of the PTT woven fabric is different from the construction of the PET woven fabric.

regard to carpet applications, fabric softness can be significantly affected by manufacturing techniques. There is no demonstration in the Petition that use of PTT fibers is required to achieve a particular level of fabric softness. We refer the Commission to the more extended discussion of these issues above in Part IV.A.4.

C. OTHER CONSIDERATIONS

The Petition's argument that it might be difficult to combine PTT and PET fibers in the recycling process (pp. 24-25), even if accepted as true, simply has no material bearing on whether *consumers* will be adequately informed if PTT fibers continue to be labeled as "polyester." If industrial companies in the business of recycling polyester need to make allowances that some portion of a recycled polyester product is PTT rather than PET, those companies will take steps to meet particular specifications for the recycled polymer. This concern is properly one for the recycling industry. It is not a concern of the Textile Fiber Products Identification Act.

Finally, the Petitioners' suggested list of possible new generic subclass names for PTT fibers also raises concern for INVISTA. The Petitioners suggest two (out of three) proposed names that appear to be intentionally designed to create confusion with existing INVISTA trademarks: "resisoft" is alarmingly similar to INVISTA's ResisTech® brand name, which is widely known and used in the carpet market to represent carpet cleaning products designed to improve and prolong stain and soil resistance; "durares" is likewise alarmingly similar to INVISTA's DuraTech® which is known throughout the soft flooring industry as the INVISTA brand for soil resistant treatment for carpet made with INVISTA Antron® nylon carpet fiber.

INVISTA objects to the selection of either of those names in the unlikely event the Commission were to designate PTT a new subclass of polyester.[17]

VI. CONCLUSION

This Petition must be denied in its entirety. First, these Petitioners are equitably barred now from seeking a new generic subclass name after spending over a year ignoring the Textile Fiber Products Identification Act with regard to the fiber that is the subject of the Petition. Second, the Petition does not even claim that PTT fibers perform differently from PET fibers with regard to a significant number of performance characteristics in carpet and apparel applications. Third, the test results presented by Petitioners are unreliable because of the inadequate testing methodology used. Fourth, even if the results are considered reliable by the Commission, they do not establish performance differences that are material to consumers.

In the unlikely event that the Commission considers the Petitioners' request for a new generic subclass name under the general "polyester" classification, INVISTA objects to the selection of either "resisoft" or "durares."

Respectfully submitted

INVISTA S.à r.l.

By: /s/

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[17] INVISTA responds to the Commission's request in its Public Notice, 72 F.R. at 48602 (August 24, 2007), regarding the definition of polyester under 16 C.F.R. 303.7(c), and contends that because this Petition is wholly lacking in merit, Rule 7(c) should be retained in its current form.

THE CARPET AND RUG INSTITUTE

The Carpet and Rug Institute, Inc.
730 College Drive, P. O. Box 2048, Dalton, Georgia 30722
Phone (706) 278-3176 FAX (706) 278-8835

Guidelines for Use of CRI Grading Scales For Field Assessment of Carpet Appearance Change

Although established standards for use of the CRI Field Assessment Scales have not been formalized, the following notes should be of help in the use of these abbreviated scales. **Description** – the Field Assessment scales are full step scales based on typical carpet constructions as described in CRI TM-101. Instead of large images as are used in the standard series, a smaller section of the image is used and the complete scale for the construction is presented on a single page. Also, there are no intermediate, or half steps, in the field edition of the scales. A total of seven various common carpet surface textures are available.

Note: In order to maintain the integrity of these scales, please **DO NOT** make and/or distribute duplications.

Hints for Successful Use of Scales

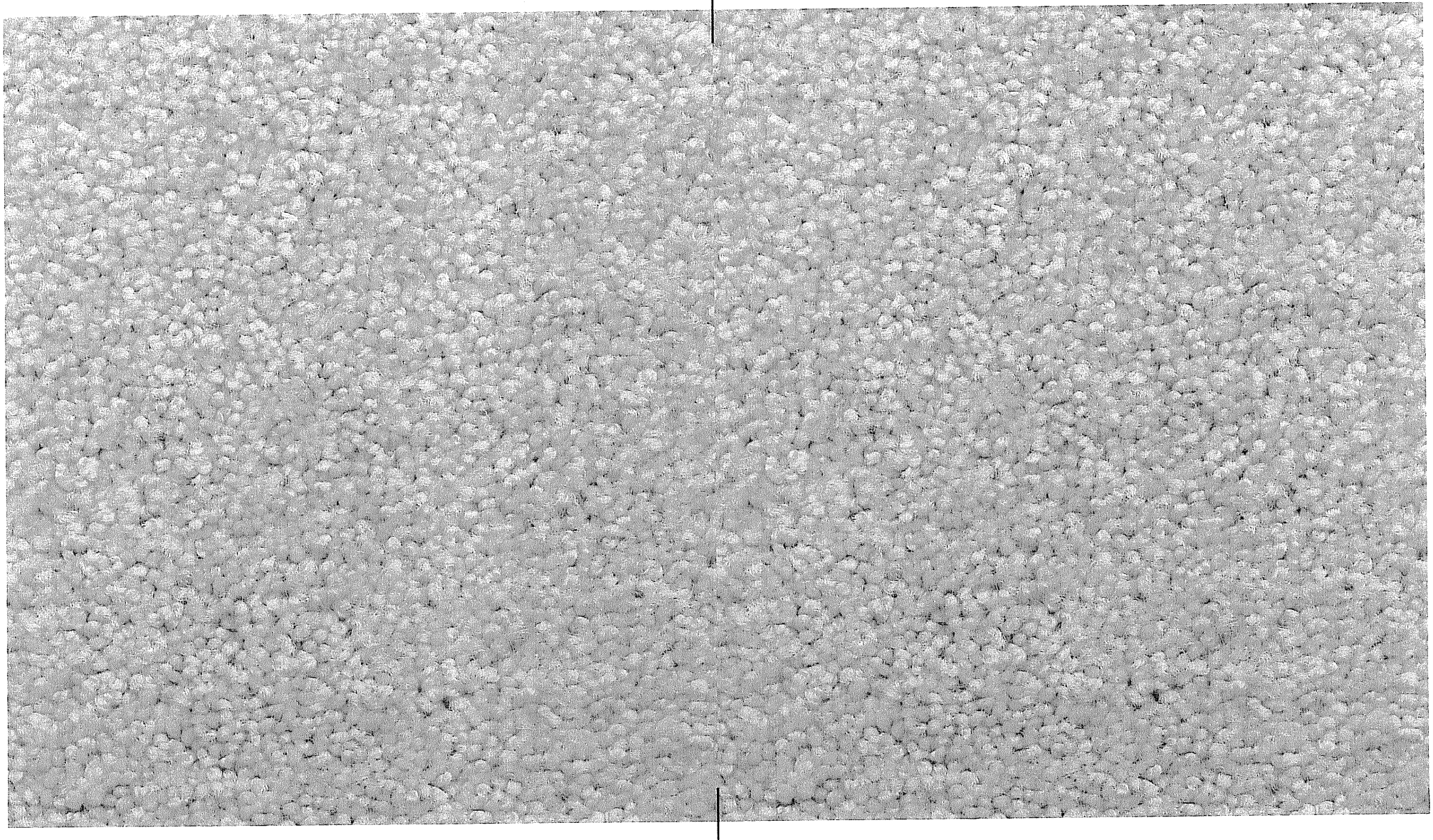
- Select the area(s) to assess. Should be well lighted. A high intensity light will aid considerably.
- Vacuum area to be assessed. Vacuuming should be no more than two back and forth passes over the area with an upright vacuum equipped with a rotating brush head.
- If possible, obtain a piece of the un-trafficked or new carpet to use as a comparison. Many homeowners may have "attic" pieces available.
- Select the appropriate reference scale series which most nearly resembles the construction of the carpet being assessed.
- Place the appropriate scale on the floor area to be assessed. If available, place the un-trafficked carpet sample on the floor along with the scale. This will aid in reaching a decision on the amount of appearance change. Color differences due to soiling, fading and color differences from the color scales should be ignored.
- Observe the specimens from a distance of approximately 1.5 ft. – 3 ft. at a 45° - 90° angle from the specimen. Observe specimens from various directions.
- Observing such features as crushing, loss of tuft definition, and matting, choose the reference scale grade which most nearly resembles the degree of surface appearance change of the exposed specimen. Make your subjective judgment based on full step scales of 5 to 1 with 5 being no change and 1 representing a severe change. Mid of half step grades may be given if the amount of change falls between full scale grades. Do not try to grade in I increments less than 0.5.
- Report should include the identification of the CRI scale used and the average rating given.

CRI REFERENCE SCALE

For Carpet Surface Texture Change

11/2007

ORIGINAL 5.0 **CRI-1** GRADE 4.5



CRI REFERENCE SCALE

For Carpet Surface Texture Change

11/2007

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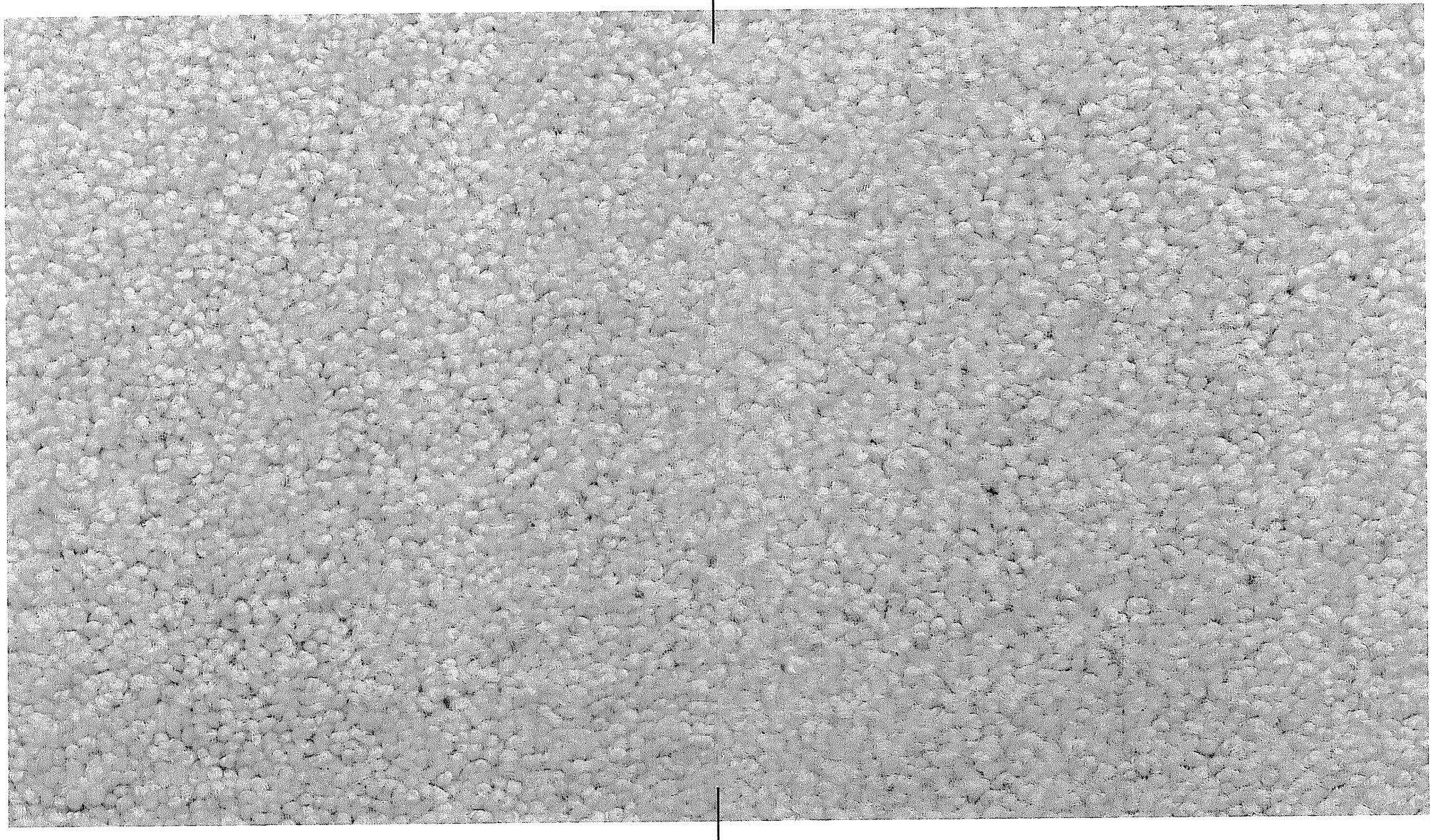

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11/2007

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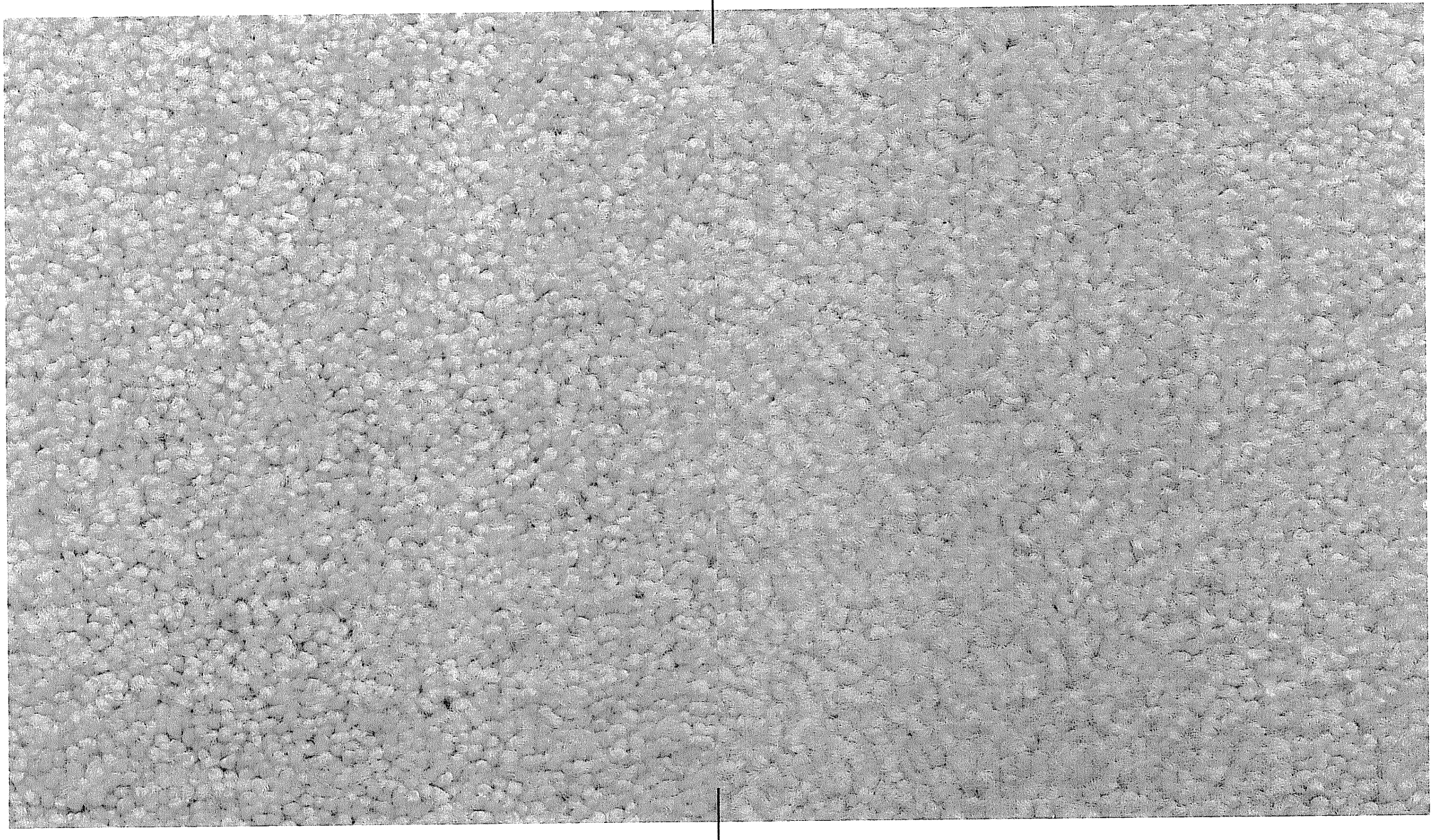

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For Carpet Surface Texture Change

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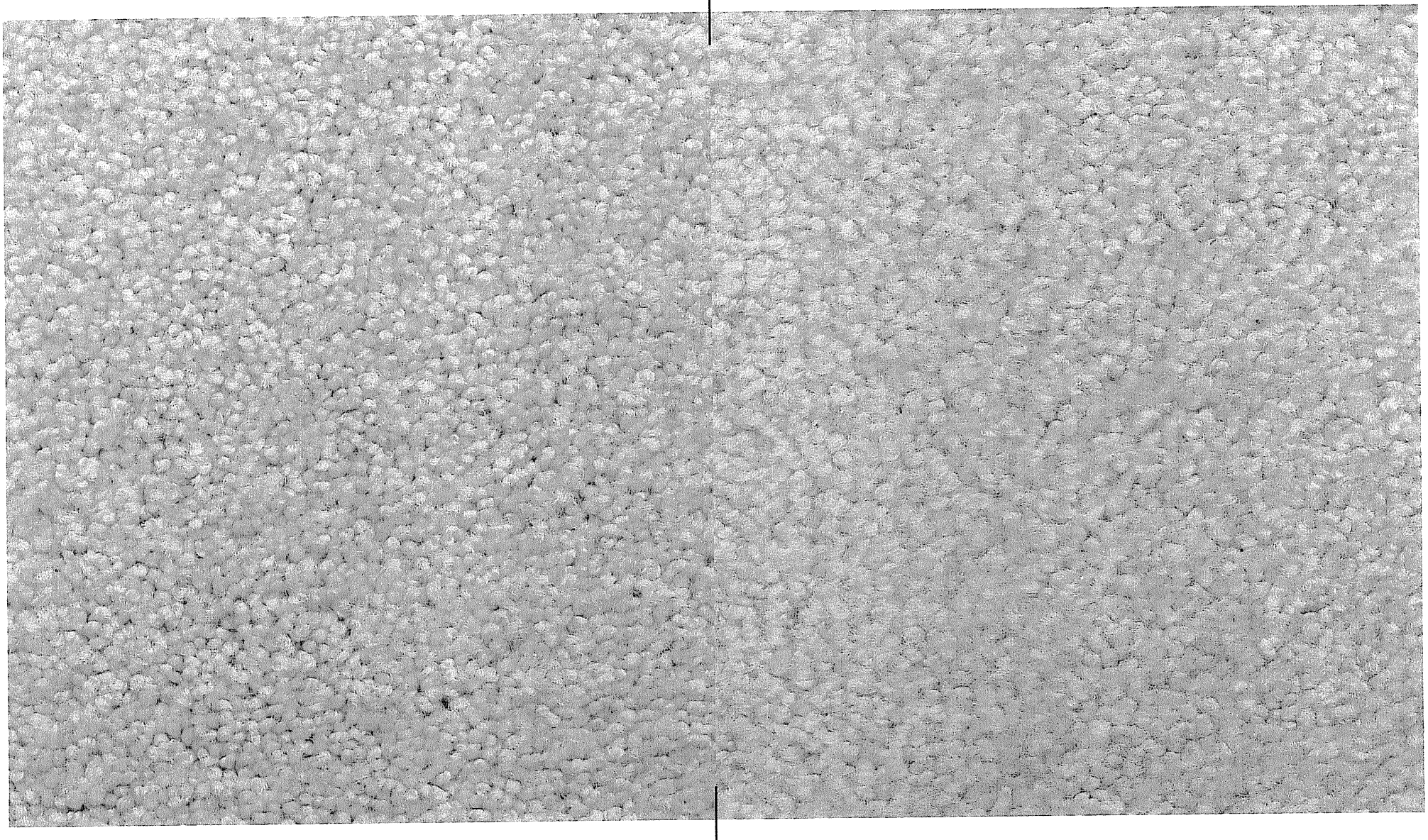

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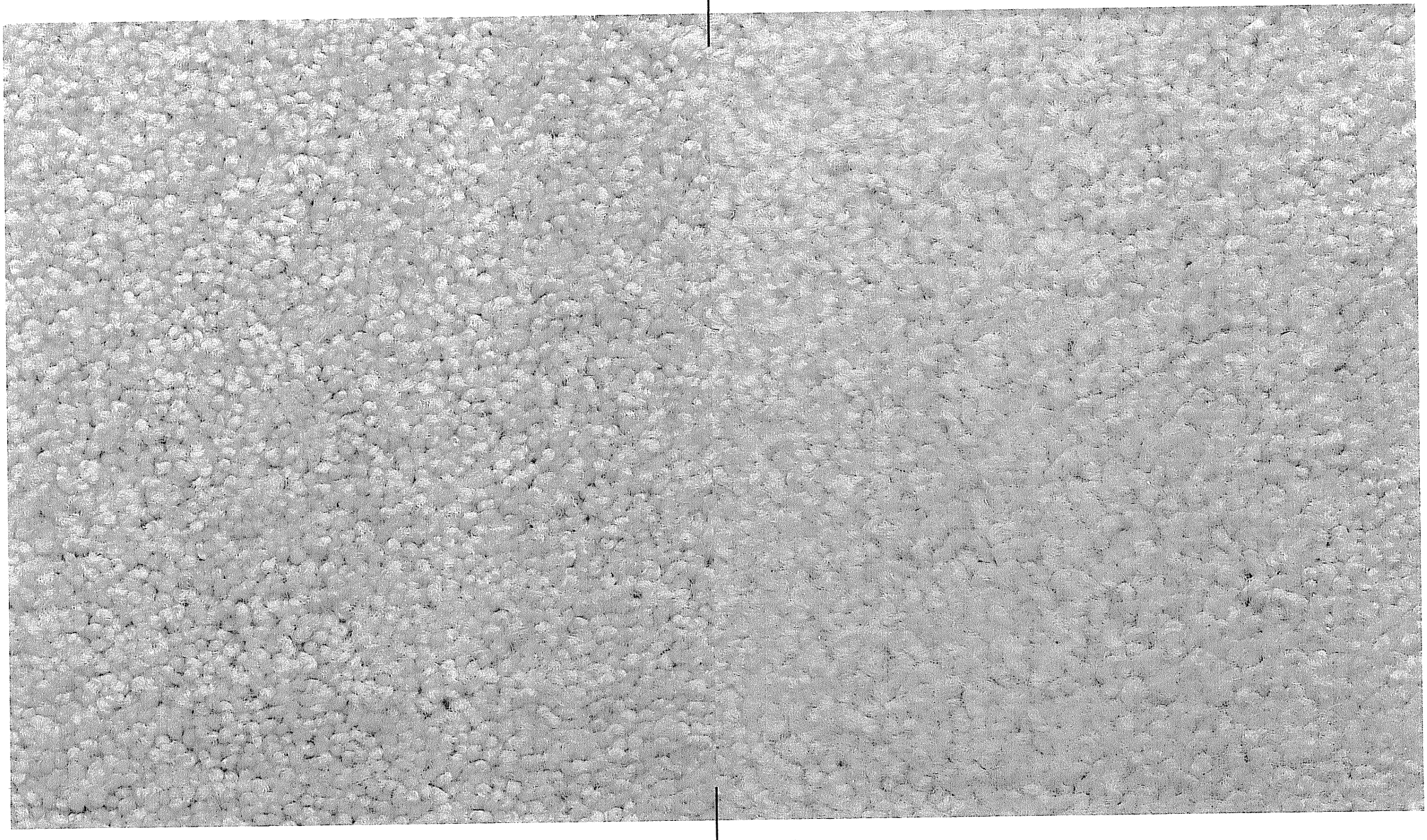

CRI REFERENCE SCALE

For Carpet Surface Texture Change

11/2007

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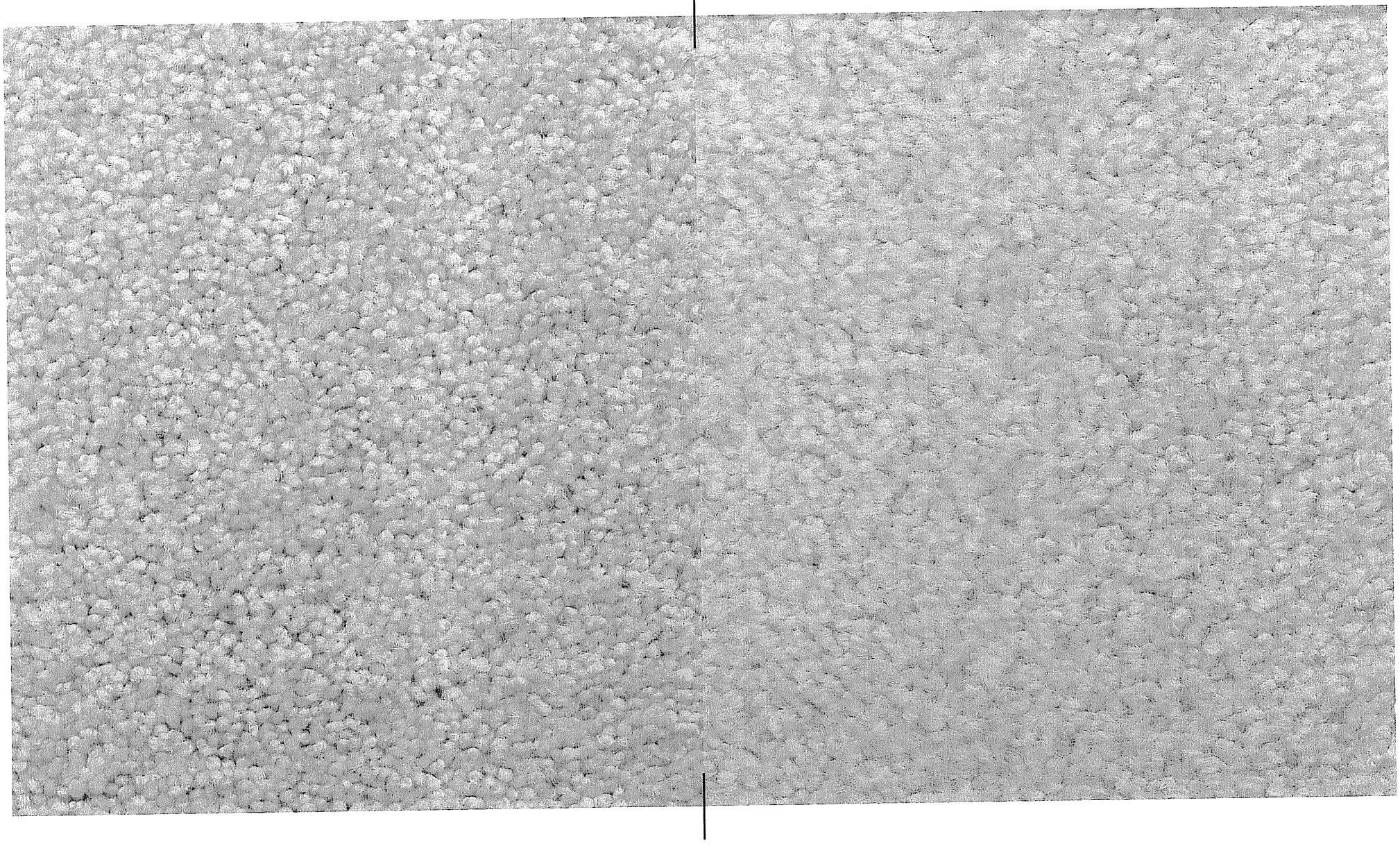
CRI-1

GRADE 2.0



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For Carpet Surface Texture Change

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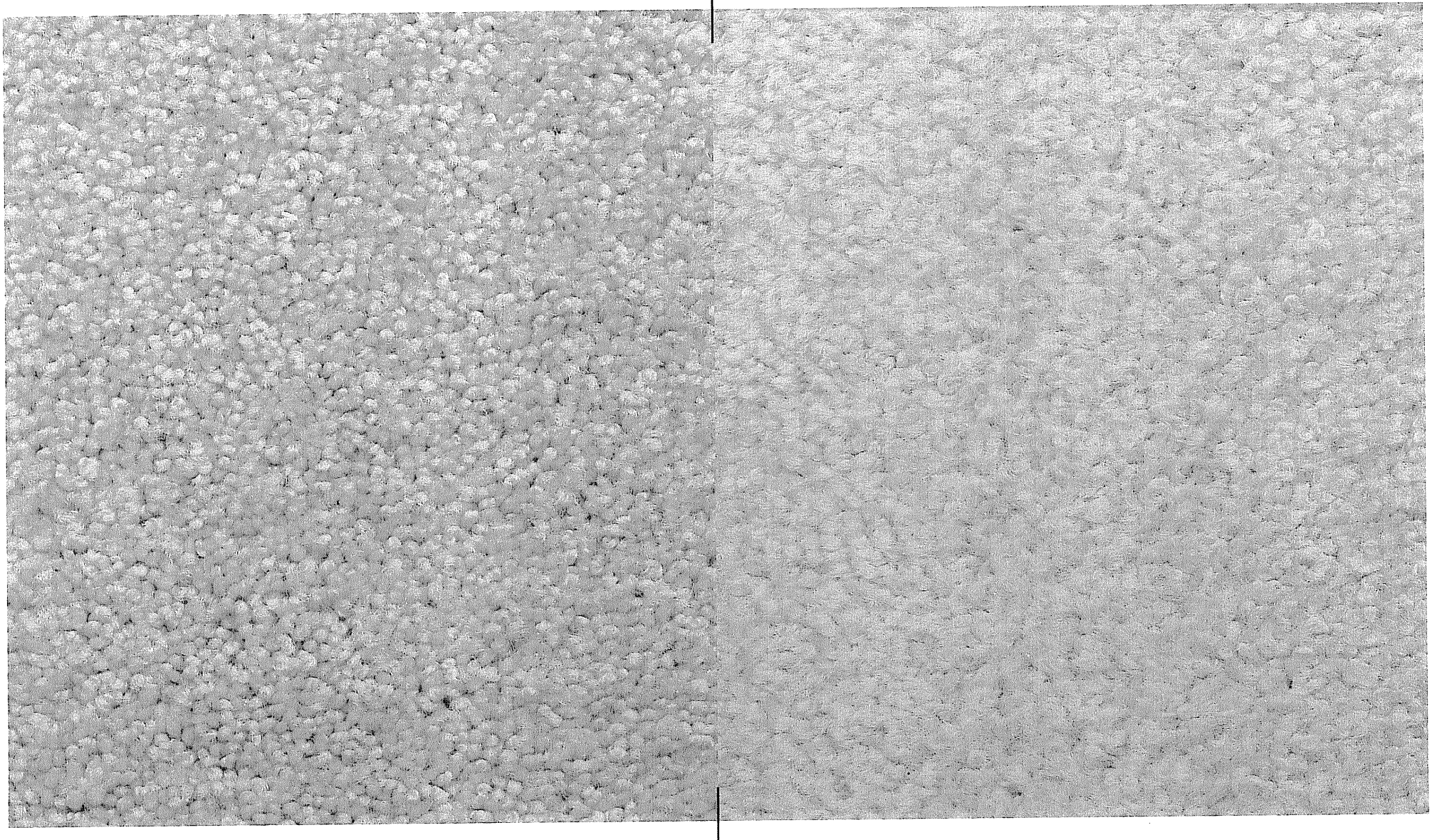

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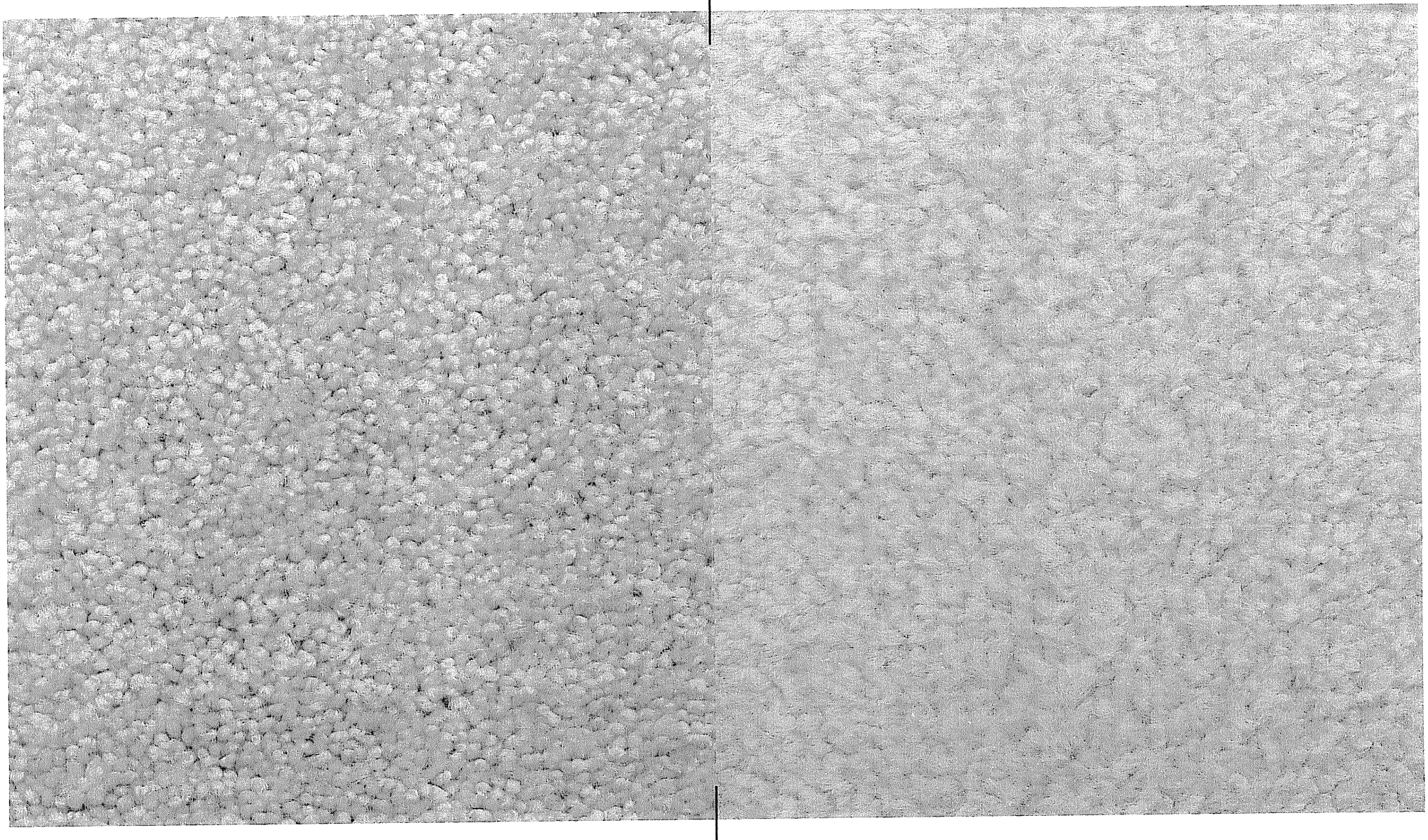
GRADE 1.0



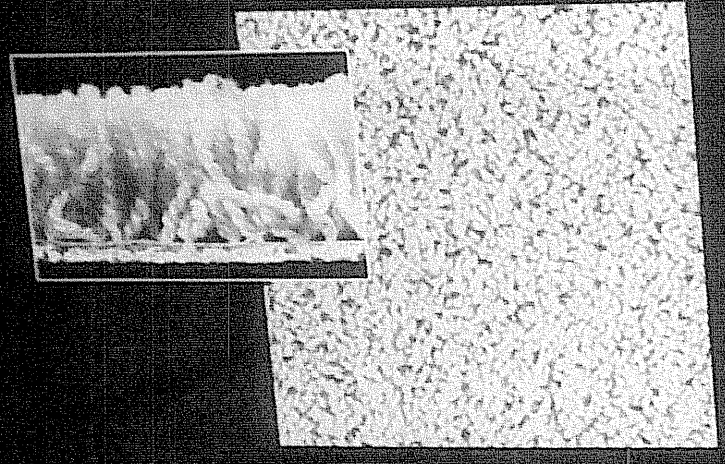
SMARTSTRAND

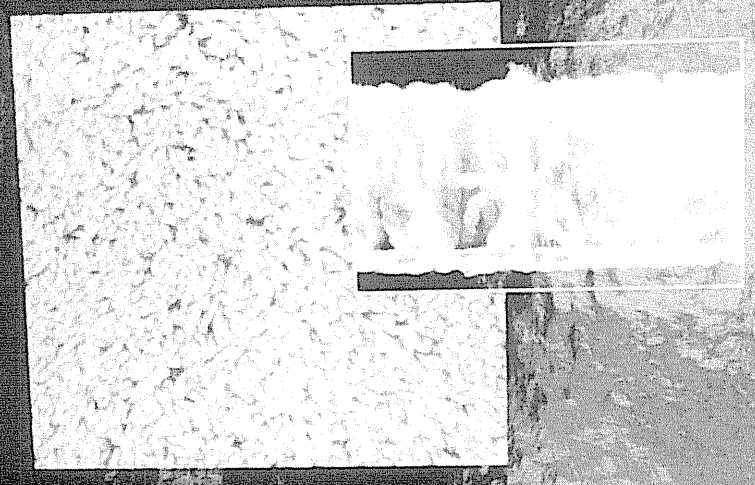
made with DuPont™ Sorona® polymer

the carpet for today's generation with the technology of tomorrow

Durable. Soft. Long-lasting.

Carpets featuring SmartStrand with DuPont™ Sorona® polymer certainly are practical and easy to clean, and they are inherently soft and durable as well. This advanced fiber technology provides a natural softness that is proven to perform exceptionally well in wear and durability tests.





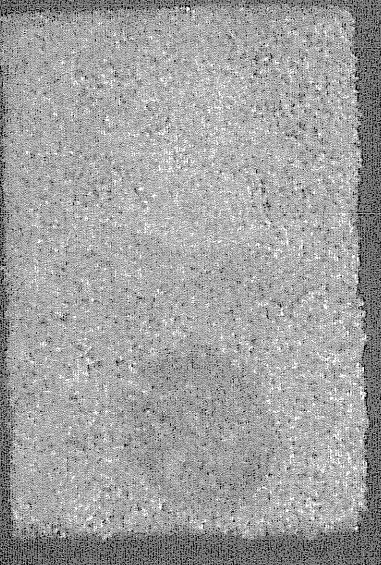
Can you tell which of these SmartStrand with DuPont Sorona carpets has been subjected to a year's worth of wear? No? Well that's the whole point.

This revolutionary polymer's resiliency, or ability to recover after stress, will keep your carpet looking newer longer. By the way...it's the one on the right.

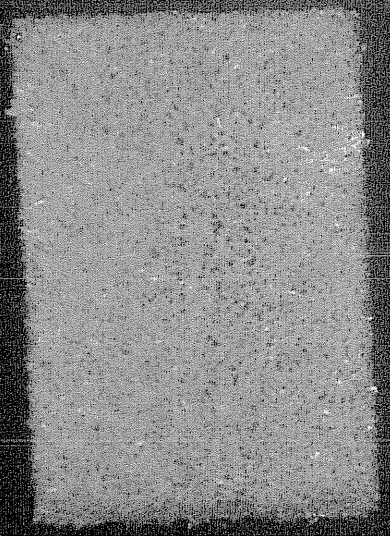
Exhibit B

SmartStrand™ fibers made with DuPont™ Sorona® polymers represent a break-through in fiber technology that combines exceptional durability with permanent protection in stain resistance. And because the enhanced protection is engineered into the fiber, it will never wear or clean off.

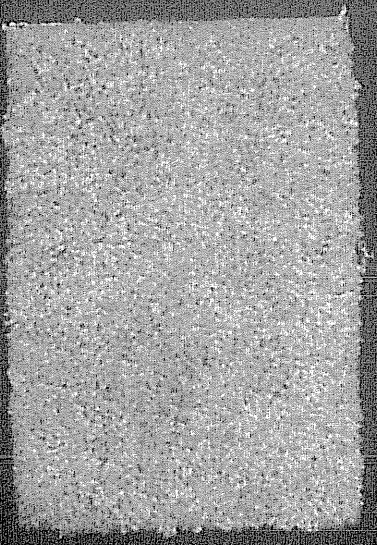
SMARTSTRAND.
DuPont Sorona
Stained with
mustard and wine



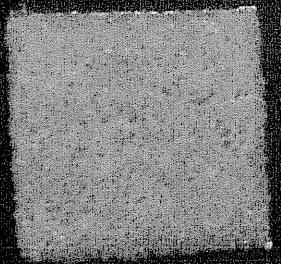
Leading Nylon Brand
Stained with
mustard and wine



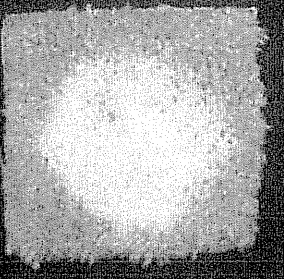
SMARTSTRAND.
DuPont Sorona
Cleaned



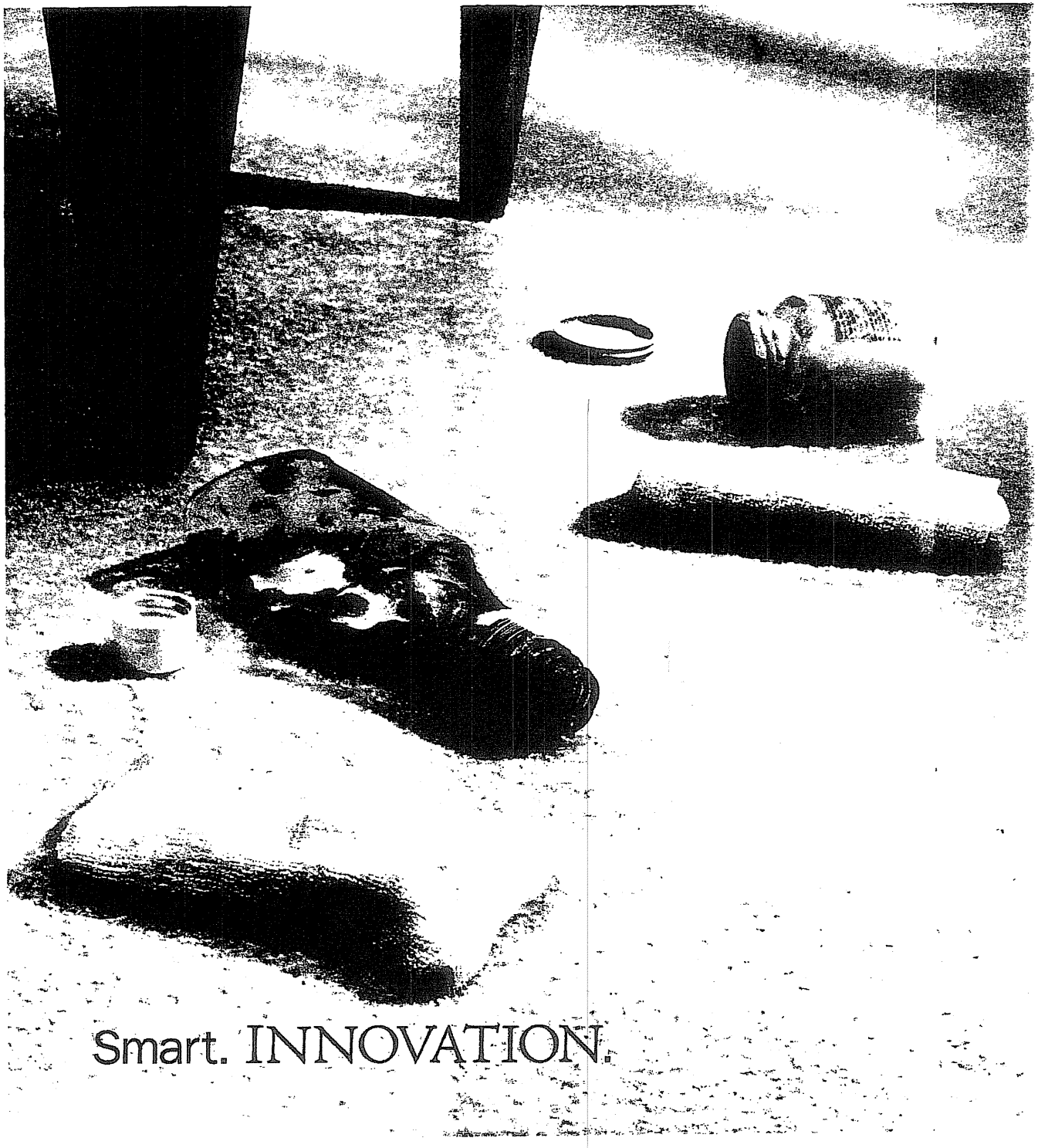
Leading Nylon Brand
Cleaned



SMARTSTRAND.
DuPont Sorona
Treated with household
bleach and rinsed



Leading Nylon Brand
Treated with household
bleach and rinsed



Introducing the latest innovation in fiber technology. It keeps coming clean.

SMARTSTRAND
made with DuPont Sorona polymer

It's the biggest fiber advancement to come along in over a generation. It's **SmartStrand** with DuPont™ Sorona® polymer. Mohawk and DuPont™ have teamed up to create this revolutionary and exclusive new product that provides your customers with permanent stain protection built into the fiber. It can never wear or clean off. **SmartStrand** provides enhanced stain resistant protection that will last for the life of the carpet and has the warranties to stand behind it.

At Mohawk we consistently try to discover new ways to excite the marketplace and **SmartStrand** is one of them. **SmartStrand** fiber has been researched and tested, and it's conclusive; this latest fiber innovation delivers on performance, design and beauty. Show your customers something new and exciting– carpets made with **SmartStrand**. **Smart. Simply Smart.**

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REVOLUTIONARY STAIN PROTECTION
SMARTSTRAND™
made with DuPont™ Sorona® polymer
AUTHORIZED DEALER

STYLE: 4076 Abilene Pass

COLOR: 107 Bone China

PILE: 100% Mohawk SmartStrand 3GT Made With Dupont Sorona Polymer

WIDTH: 12 Ft.

REPEAT: None

60 DAY SATISFACTION ASSURANCE GUARANTEE

FHA APPROVED

CRI# 13427678
Tested and approved in accordance with the Carpet and Rug Institute's Indoor Air Quality Testing and Labeling Program
For more information 800-882-8846.

MOHAWK
Mohawk Makes the Room
1-800-2-MOHAWK www.mohawkcarpet.com
Slight variations in color may occur from dye lot to dye lot.

SPECIALITY

MADE IN USA

ORIZON

by MOHAWK®

STYLE: 3529 Color Extravaganza

COLOR: 511 Eureka

PILE: 100% Mohawk SmartStrand 3GT
Made With Dupont Sorona Polymer

WIDTH: 12 Ft.

REPEAT: 5/16"W x 1/3"L

Slight variations in color may occur from dye lot to dye lot.

CRI# 13427678

MOHAWK
Mohawk Makes the Room
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RN 99717

MADE IN USA

15 YEAR ABRASIVE WEAR WARRANTY

The fiber in this carpet, when subjected to normal abrasive wear, will not lose more than ten percent of its surface pile for a period of fifteen years.

10 YEAR TEXTURE RETENTION WARRANTY

For a period of ten years, the fiber in this carpet will not show abnormal appearance change from ordinary foot traffic as a result of the yarn losing twist.

LIFETIME STAIN RESISTANCE WARRANTY

For the lifetime of this carpet, the surface pile will resist permanent staining provided proper maintenance, care, and cleaning instructions have been followed.

10 YEAR FADE RESISTANCE WARRANTY

This carpet is made with the finest fibers offering rich vivid colors that are engineered to resist ozone fading and carries a ten year fade resistance warranty.

20 YEAR ANTI-STATIC WARRANTY

For a full twenty years, this carpet will reduce the static electricity below the discernible level of most people and is warranted to maintain these properties.

20 YEAR MANUFACTURING DEFECTS WARRANTY

This carpet is warranted to be free of all manufacturing defects for a period of twenty years.

UNZ3

SMARTSTRAND.

made with DuPont™ Sorona® polymer

- *Engineered in Stain Protection*
- *New Durable and Soft Fiber*
- *Built on DuPont Technology*
- *Easy to Clean and Maintain*

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