



Standard Practices for Visual Inspection and Grading of Fabrics Used for Inflatable Restraints¹

This standard is issued under the fixed designation D 5426; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 These practices cover procedures for the inspection and grading of coated and uncoated woven fabrics, and for the inspection and culling of cut parts made of such fabrics, all of which are used in the manufacture of inflatable restraint cushions.

1.2 For ease of reference, the scope, summary of practice, significance and use, apparatus, sampling, procedure, and report sections are listed separately for each inspection practice.

Inspection Practice	Section
Fabric Rolls	7
Cut Pieces	8

1.3 These practices can be used to distinguish those fabric imperfections that may adversely affect inflatable restraint cushion fabrication or performance from those imperfections that will not.

1.4 Only major imperfections are considered in the grading systems of these practices.

1.5 Procedures and apparatus other than those stated in these practices may be used by agreement of the purchaser and supplier with the specific deviations from these practices acknowledged in the report.

1.6 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

D 123 Terminology Relating to Textile Materials²

¹ These practices are under the jurisdiction of ASTM Committee D-13 on Textiles and are the direct responsibility of Subcommittee D13.20 on Inflatable Restraints.

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² *Annual Book of ASTM Standards*, Vol 07.01.

D 3990 Terminology Relating to Fabric Defects³

2.2 ASTM Adjuncts:⁴

Reference Photographs of Imperfections

3. Terminology

3.1 *Definitions*—For definitions of textile terms used in these practices, refer to Terminologies D 123 and D 3990.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *abrasion*, *n*—for inflatable restraint fabrics, a fuzzy cluster of broken filaments damaged by scraping.

3.2.2 *air splice*, *n*—for inflatable restraint fabrics, the thicker portion of a yarn resulting from the entanglement of the filaments at the ends of two multifilament yarns to create a continuous yarn.

3.2.3 *bleedthrough*, *n*—for coated inflatable restraint fabrics, the presence of coating material on the uncoated side, between two yarns, without covering either yarn.

3.2.4 *blip*, *n*—for inflatable restraint fabrics, any short, irregularly shaped or textured portion of an individual multifilament yarn that has been woven into the fabric, including slough offs, stripbacks, fuzz balls, snarls, and slubs.

3.2.5 *broken filament*, *n*—for inflatable restraint fabrics, an individual filament, separated from a multifilament yarn bundle, that lies on the surface of the fabric.

3.2.6 *bruise*, *n*—for inflatable restraint fabrics, a shift in the squareness of the weave pattern in an area that has been subjected to impact or pressure.

3.2.7 *coating slub*, *n*—for coated inflatable restraint fabrics, an irregularly shaped lump of coating material on the surface of the coated layer resembling a yarn slub.

3.2.8 *coating streak*, *n*—for coated inflatable restraint fabrics, minor variation in the color or opacity of the coated layer.

3.2.9 *coating transfer*, *n*—for coated inflatable restraint fabrics, the presence of coating material on the uncoated side, covering one or more yarns.

3.2.10 *contamination*, *n*—for coated inflatable restraint fabrics, the presence of non-coating material in the coated layer.

3.2.11 *cushion*, *n*—for inflatable restraints, the inflatable fabric envelope portion of a module.

³ *Annual Book of ASTM Standards*, Vol 07.02.

⁴ Set of reference photographs are available from ASTM Headquarters. Request ADJD5426.