

TOUGH COLLECTION



Our Tough Collection polyurethanes are constructed and designed for all home furnishing applications. Tough Collection products are tested in accordance with the furniture and hospitality industry in mind.

Product Line	Abrasion ASTM 4157 Wire screen & Cotton Duck	Tear / Tensile: ASTM D5034 & D2261	Seam Slippage / Seam Strength: ASTM D4034 & D1683	Flame Retardancy	Test Results – ISO 1419	Warranty (against hydrolysis)
Tough Collection	50,000 +	Exceed	Meet or Exceed	MVSS302 & Cal117	3-5 Weeks	2 Years
Tough Collection, Series 5	50,000 +	Exceed	Meet or Exceed	MVSS302 & Cal117	5-8 Weeks	5 Years
Tough Collection, Series 10	50,000 +	Exceed	Meet or Exceed	MVSS302 & Cal117	10+ weeks	10 Years

What is Hydrolysis?

Hydrolysis is any chemical reaction in which a molecule of water ruptures a chemical bond, resulting in a loss of water. Think of it as dry skin - over time the polyurethane material loses water and causes the skin surface to crack or peel. All polyurethanes have this problem, but there are a few solutions.

How do you test for Hydrolysis?

The industry test commonly referred to as the “Jungle test” or “weathering test” (ISO 1419: 1995(E) Method C “Tropical Test”) is the most well-known test in the upholstery marketplace. During this test, a polyurethane sample is put into a test chamber and visually examined against a control sample. The polyurethane sample is examined weekly for a pre-determined number of weeks, or until the product breaks down and fails. If a polyurethane surface cracks, delaminates, or experiences other extreme changes, the sample is considered a failure. The Jungle test proclaims no minimum specifications for failure, but it’s generally accepted that residential upholstery product should withstand at least 3 weeks in the test chamber, and products designed for commercial upholstery applications should withstand 5 weeks. While there is no direct correlation between weeks and years, many people equate one week to mean one year. This is not an absolute truth but is commonly referenced.

Solutions for Hydrolysis – what does Richloom offer?

Richloom offers polyurethane fabrics within its Tough Collection. The Tough Collection has three line extensions: Tough, Tough Series 5 and Tough Series 10. All polyurethanes within Richloom’s Tough Collection meet or exceed residential and commercial tests for tear, seam, abrasion, colorfastness, etc. See above chart for hydrolysis ratings for Richloom’s Tough Collection.

How does Richloom prevent/extend Hydrolysis?

An anti-hydrolysis chemical is added to the manufacturing process for all Series 5 and Series 10 product. Solvent-free chemicals are also used when manufacturing Series 10 product.

Does all “vinyl” have this problem?

Yes. “Bonded leather”, “dry PU”, “wet PU” – basically any polyurethane material experiences a hydrolysis issue. PVC vinyl does not experience hydrolysis because it is a different “type of vinyl” (although it has other pros and cons). Fortress Marine Performance is Richloom’s offering of PVC vinyls, all meeting and exceeding marine specifications.

Tough Collection Limited Warranty

February 25, 2019

Richloom Fabric Group (“Richloom”) stands behind our fabrics in our Richloom Tough line of vinyl products and is pleased to offer the following limited warranty.

Subject to the limitations and conditions described herein, Richloom warrants to the purchasing manufacturer of parts or furniture incorporating Richloom Tough vinyl and polyurethane products for a period of two (2) years from the date of purchase that the product will conform to the applicable product specifications provided by Richloom, and will remain free from defects in materials and workmanship.

This limited warranty excludes damage and/or staining from (1) product misuse or abuse, (2) failure to follow the Richloom Tough proper care/cleaning guidelines, (3) allowing stained product to remain uncleaned for more than 24 hours after staining, (4) exposure to non-food or non-beverage substances including, without limitation, pet stains, hair dyes, shoe polish, paints, inks, nail polish, crayons, bleaches, caustic chemicals, fertilizers, insecticides, iodine, acne medications, drain cleaners, plant food and bodily fluids or substances, (5) exposure to vegetable oil based products or foods and beverages that contain strongly colored natural disperse dyes, found, for example, in mustard and herbal, and (6) exposure to very hot substances.

This limited warranty covers the replacement cost of the Richloom Tough products affected up to the original purchase price. If the original product is no longer available Richloom will provide replacement product in the same price range. This limited warranty does not include other costs that may be associated with replacement of the fabric, including labor and installation.

The application of any chemical treatments, including treatments purchased at the retail level, by a third party other than Richloom voids this limited warranty.

EXCEPT AS EXPRESSLY SET FORTH ABOVE, RICHLOOM EXPRESSLY DISCLAIMS ALL WARRANTIES OF ANY KIND OR NATURE WITH RESPECT TO RICHLOOM TOUGH PRODUCTS, WHETHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY ARISING OUT OF ANY COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE.

The provisions of the foregoing limited warranty shall be Richloom Tough product purchasers’ sole and exclusive remedy with respect to the Richloom Tough products purchased. No decision by Richloom to honor claims or provide any remedy exceeding or outside of the foregoing limited warranty in any instance shall constitute a waiver of any provision of the foregoing warranty with respect to any other instance or establish a course of dealing between the parties that would vary any provision of the foregoing limited warranty.

Richloom Tough Proper Care/Cleaning Guidelines

Both PVC and Polyurethanes should be cleaned with a mild, water based shampoo or soap. More stubborn stains can be cleaned with a mild, non-alcohol based, cleaning fluid. Rinse with clean water afterwards. For non-liquid stains such as mustard, please remove any excess with a flat object before cleaning. All stains and spills must be attended to promptly.

Tough Collection, Series 5 Limited Warranty

February 25, 2019

Richloom Fabric Group (“Richloom”) stands behind our fabrics in our Richloom Tough Series 5 line of vinyl products and is pleased to offer the following limited warranty.

Subject to the limitations and conditions described herein, as it relates to Hydrolysis, Richloom warrants to the purchasing manufacturer of parts or furniture incorporating Richloom Tough Series 5 vinyl and polyurethane products for a period of five (5) years from the date of purchase that the product will conform to the applicable product specifications provided by Richloom, and will remain free from defects in materials and workmanship.

This limited warranty excludes damage and/or staining from (1) product misuse or abuse, (2) failure to follow the Richloom Tough proper care/cleaning guidelines, (3) allowing stained product to remain uncleaned for more than 24 hours after staining, (4) exposure to non-food or non-beverage substances including, without limitation, pet stains, hair dyes, shoe polish, paints, inks, nail polish, crayons, bleaches, caustic chemicals, fertilizers, insecticides, iodine, acne medications, drain cleaners, plant food and bodily fluids or substances, (5) exposure to vegetable oil based products or foods and beverages that contain strongly colored natural disperse dyes, found, for example, in mustard and herbal, and (6) exposure to very hot substances.

This limited warranty covers the replacement cost of the Richloom Tough products affected up to the original purchase price. If the original product is no longer available Richloom will provide replacement product in the same price range. This limited warranty does not include other costs that may be associated with replacement of the fabric, including labor and installation.

The application of any chemical treatments, including treatments purchased at the retail level, by a third party other than Richloom voids this limited warranty.

EXCEPT AS EXPRESSLY SET FORTH ABOVE, RICHLOOM EXPRESSLY DISCLAIMS ALL WARRANTIES OF ANY KIND OR NATURE WITH RESPECT TO RICHLOOM TOUGH PRODUCTS, WHETHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY ARISING OUT OF ANY COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE.

The provisions of the foregoing limited warranty shall be Richloom Tough product purchasers’ sole and exclusive remedy with respect to the Richloom Tough products purchased. No decision by Richloom to honor claims or provide any remedy exceeding or outside of the foregoing limited warranty in any instance shall constitute a waiver of any provision of the foregoing warranty with respect to any other instance or establish a course of dealing between the parties that would vary any provision of the foregoing limited warranty.

Richloom Tough Proper Care/Cleaning Guidelines

Both PVC and Polyurethanes should be cleaned with a mild, water-based shampoo or soap. More stubborn stains can be cleaned with a mild, non-alcohol based, cleaning fluid. Rinse with clean water afterwards.

Tough Collection, Series 10 Limited Warranty

February 25, 2019

Richloom Fabric Group (“Richloom”) stands behind our fabrics in our Richloom Tough Series 10 line of vinyl products and is pleased to offer the following limited warranty.

Subject to the limitations and conditions described herein, as it relates to Hydrolysis, Richloom warrants to the purchasing manufacturer of parts or furniture incorporating Richloom Tough Series 10 vinyl and polyurethane products for a period of ten (10) years from the date of purchase that the product will conform to the applicable product specifications provided by Richloom, and will remain free from defects in materials and workmanship.

This limited warranty excludes damage and/or staining from (1) product misuse or abuse, (2) failure to follow the Richloom Tough proper care/cleaning guidelines, (3) allowing stained product to remain uncleaned for more than 24 hours after staining, (4) exposure to non-food or non-beverage substances including, without limitation, pet stains, hair dyes, shoe polish, paints, inks, nail polish, crayons, bleaches, caustic chemicals, fertilizers, insecticides, iodine, acne medications, drain cleaners, plant food and bodily fluids or substances, (5) exposure to vegetable oil based products or foods and beverages that contain strongly colored natural disperse dyes, found, for example, in mustard and herbal, and (6) exposure to very hot substances.

This limited warranty covers the replacement cost of the Richloom Tough products affected up to the original purchase price. If the original product is no longer available Richloom will provide replacement product in the same price range. This limited warranty does not include other costs that may be associated with replacement of the fabric, including labor and installation.

The application of any chemical treatments, including treatments purchased at the retail level, by a third party other than Richloom voids this limited warranty.

EXCEPT AS EXPRESSLY SET FORTH ABOVE, RICHLOOM EXPRESSLY DISCLAIMS ALL WARRANTIES OF ANY KIND OR NATURE WITH RESPECT TO RICHLOOM TOUGH PRODUCTS, WHETHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY ARISING OUT OF ANY COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE.

The provisions of the foregoing limited warranty shall be Richloom Tough product purchasers’ sole and exclusive remedy with respect to the Richloom Tough products purchased. No decision by Richloom to honor claims or provide any remedy exceeding or outside of the foregoing limited warranty in any instance shall constitute a waiver of any provision of the foregoing warranty with respect to any other instance or establish a course of dealing between the parties that would vary any provision of the foregoing limited warranty.

Richloom Tough Proper Care/Cleaning Guidelines

Both PVC and Polyurethanes should be cleaned with a mild, water-based shampoo or soap. More stubborn stains can be cleaned with a mild, non-alcohol based, cleaning fluid. Rinse with clean water afterwards.