

RoboLiner

TOTAL CONTAINMENT SOLUTIONS, INC.

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Product Data Sheet

RoboLiner® Patented Polyurea Sprayed Containment Liner

Product Description- *RoboLiner®* is our patented (US 8,500,941 B2) pre-sprayed composite liner system comprised of spun woven geotextile and a 100% solids pure polyurea system. *RoboLiner®* may be used by itself or in combination with other materials to produce wearing courses and resilient surfaces on a variety of substrates. *RoboLiner®* is inert, it will not hydrolyze, leach, or contaminate other materials, and is bondable and paintable. *RoboLiner®* is relatively moisture and temperature insensitive, allowing application in the most problematic ambient conditions.

Uses- *Total Containment Solutions RoboLiner®* is a patented superior composite liner designed specifically for industrial applications receiving intermittent attack from contained materials. *RoboLiner®* is flexible, accommodating to movement of the substrate, yet strong enough to remain intact under all conditions except major structural dislocations. With or without reinforcements, *RoboLiner®* may be used in transitional areas in interior or exterior applications.

Ideal for Applications in:

- Secondary Containment
- Industrial facilities
- Unsalvageable concrete substrates
- Below grade waterproofing
- Above grade waterproofing
- Water & Wastewater treatment
- Lift station manholes
- Wet wells
- Penetrations & terminations

Advantages:

- 100% solids, no VOC's
- Ease of installation
- Tough, Seamless Elastomeric Membrane
- Pre-manufactured robotically in a controlled environment
- Excellent thermal stability
- Minimal downtime
- Arrives to project fully cured and ready for installation
- Remains Flexible in Colder Temperatures
- Good UV stability
- Reduced material waste
- Low permeance rate
- Good resistance to a wide range of chemical attack
- Installation temperature range from -40°F to 350°F
- No heat welded seams necessary

| Physical Properties - | | |
|---|-------------|---------------|
| Cured Composite Film | Test Method | Typical Value |
| Burst Strength, lbf | ASTM D751 | 415 |
| Puncture Resistance, lbf | ASTM D751 | 65-70 |
| Open to Use | | 1 hour |
| Tensile strength, psi | ASTM D638 | 1,225-1,650 |
| Tensile elongation (%) | ASTM D638 | 100-160 |
| Modulus of elasticity (psi) | ASTM D638 | 1,750-3,300 |
| Tear strength ,pli, Die C | ASTM D624 | 365-535 |
| Shore A hardness | ASTM D2240 | 77-85 |
| Tabor abrasion, mg wt loss (1000g, 1000 revs, H-18) | ASTM D4060 | 180 |
| The value ranges stated in this Technical Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values. | | |

Limitations- *RoboLiner®* should not be used for direct contact with extremely high or low pH attack. Composite systems available upon request.

Packaging- The standard size RoboLiner® unrolled is approximately 15' wide x 40' length totaling 600 square feet. The standard thickness is 60 mil however we will provide more or less millage upon request. The weight of our standard RoboLiner® is approximate 225 lbs. For shipping they are rolled up like carpet and shrink wrapped and are then 15' long and 12" round.

Colors- Standard color is Tan. Other colors available upon special request.

Installation & Preparation- RoboLiner® must be attached to one another individually by spraying TCS 380 Polyurea via proper plural component equipment. The unsprayed edges of the liners shall be sprayed with TCS 380 with the adjacent liner piece laid on top (overlapped approx. 4"-6") to form an adhesive bond. Once secured, additional TCS 380 shall be applied to the seam to create a monolithic and seamless membrane.

TCS HM hand mix material may be used to repair small areas resulting from damage, tear, etc.

Technical Services- Sales and Customer Support 888-563-3747

Warranty-Total Containment Solutions, Inc. will refund the price of or replace, at its election, product it finds to be defective provided the product has been used properly. Except as expressly stated above, the company makes no warranty of merchantability and no warranty of fitness for any particular purpose, nor does it make any warranty, expressed or implied, of any nature whatsoever with respect to the product of its use. In no event shall the company be liable for delay caused by defects, for loss of use, for indirect, special or consequential damages, or for any changes or expenses of any nature incurred without its written consent.

