ErgonArmor
TECHNICAL COATING SOLUTIONS™

**PRODUCT INFORMATION**

***CE-270***
***10/18 Supersedes 10/13***

# *ACROLINE™ Systems*

## ***DESCRIPTION***

ACROLINE Systems are a suite of thermoplastic semi-finished products, which are welded or fused together to form custom-designed single or dual-layer liners for concrete structures. ACROLINE Liner Systems provide a chemical-resistant, leak-tight barrier to contain environmentally hazardous materials or to protect concrete structures from chemical attack. The anchored concrete protection liners are mechanically locked into a cementitious substrate to resist thermal expansion and contraction and groundwater pressure. The high elongation of thermoplastics and mechanical anchoring system of the ACROLINE concrete protection liners allows the liner to bridge cracks in the substrate.

Anchored thermoplastic sheets, the foundation product of ACROLINE Systems, are available in a variety of special designs including smooth, non-skid, dual wall, black-and-white, fabric-faced, and embedded aluminum barrier in thicknesses ranging from 2 to 12mm. ACROLINE Systems are available in four types of thermoplastic including high-density polyethylene (HDPE), polypropylene random copolymer (PPR), polyvinylidene fluoride (PVDF), and ethylene and chlorotrifluoroethylene copolymer (ECTFE).

## ***AREAS OF USE***

- Trenches
- Process Vessels
- Manholes and Lift Stations
- Containment Areas
- Flooring Systems
- Sewer Pipe Rehabilitation
- Storage Tanks
- Sumps
- Foundations

## ***OUTSTANDING FEATURES***

- Anchored sheet is manufactured in a single process with no interface between the anchors and the sheet.
- A variety of thicknesses and plastics are available to meet your thermal and chemical resistance requirements.
- Long, V-shaped anchors provide high resistance to pull-out from the substrate.
- Liner bridges cracks in concrete substrate, maintaining containment and corrosion protection.
- Dual-wall ACROLINE System$^2$ liner provides integral secondary containment and leak monitoring capability.
- Liner system has a long design life and is maintenance-free and repairable.

## ***TYPICAL PHYSICAL PROPERTIES***

| PROPERTY | TEST METHOD | UNIT | TYPICAL VALUES | | | |
|---|---|---|---|---|---|---|
| | | | HDPE | PP | PVDF | ECTFE |
| Density (23°C) | ISO 1183 | g/cm³ | 0.94 | 0.90 | 1.78 | 1.68 |
| Color | - | - | Black | Grey/Black | Natural | Natural |
| Melt Flow Rate<br>(G 10 min) | ISO 1133 | g/10 min | 190/5<br>1.8 | 190/5 0.25 | 230/5<br>6.0 | 275/2.16<br>1.0 |
| Elongation at Yield % | ISO 527 | % | ≥ 10 | ≥6 | ≥8 | ≥8 |
| Tensile Stress at yield | ISO 527 | MPa | ≥ 15 | ≥ 20 | ≥ 20 | ≥ 20 |
| Backpressure Resistance<br>(23°C) | DIBt | 1.5 bar<br>/1000 hr | Fulfilled | Fulfilled | Fulfilled | Fulfilled |
| Stud Shear Resistance<br>23°C Tensile test 5 mm/min | DIBt | N | >2000 | >2000 | >2000 | >2000 |
| Pull Out Resistance 23°C<br>Tensile Test 100 N/sec | DIN ISO<br>4246 | N/stud<br>kN/m² | 1000<br>820 | 1000<br>420 | 1000<br>420 | 1000<br>420 |
| UV Stabilized | - | - | Yes | Yes | Yes | Yes |
| Flammability | UL 94/<br>DIN 4102 | - | 94-HB<br>B2 | 94-HB<br>B2 | V-0<br>- | V-0<br>- |
| Recommended Max.<br>Working Temperature | - | °C<br>°F | 60*<br>140 | 90*<br>194 | 120*<br>248 | 140*<br>284 |

* varies with chemistry, consult Ergon.

## ***ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE***

HDPE and PP ACROLINE concrete protection liners are available in standard sheets of 4m (13 ft.) by 2m (6.5 ft.) and are available in custom widths from 1.5m (4.9 ft.) to 3m (9.8 ft.) wide. PVDF and ECTFE ACROLINE concrete protection liner is available in sheets 1.5m (4.9 ft.) wide. Sheets ≥5mm thick are shipped on pallets. Sheets <5mm thick are shipped on pallets or in rolls. All joining profiles are available in standard lengths of 5m (16.4 ft.) and are shipped in tubes.

ACROLINE Systems are custom fabricated by specialty fabricators by cutting and welding/fusing sheets and joining profiles. ACROLINE Systems are embedded in a cementitious material to form a composite system.

## ***PRECAUTIONS / DISCLAIMER***

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and material safety data sheets before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.