BTL LINERS
GEOMEMBRANE SYSTEMS

## 40 MIL XR-5®

| XR-5® 8138 RIENFORCED | STANDARD | METRIC |
|---|---|---|
| Base Fabric Type<br>ASTM D3776 | Polyester | |
| Base Fabric Weight (nominal)<br>ASTM D3776 | 6.5 oz/yd$^2$ | 220 g/m$^2$ |
| Thickness<br>ASTM D751 | 40.0 Mils nominal | 1.0mm nominal |
| Weight<br>ASTM D751 | 38.0 ± 2oz/yd$^2$ | 1288 ± 70 g/m$^2$ |
| Tear Strength<br>ASTM #D 1117, Trapeziod Tear | 35/35 lb$_f$ min | 155/155 N min. |
| Breaking Yield Strength<br>ASTM D751, Grab Tensile | 550/550 lb$_f$ min | 2447/2447 N min. |
| Low Temperature<br>ASTM D2136, 4 hr- 1/8" Mandrel | Pass @ -30° F | Pass @ -35° C |
| Dimensional Stability<br>ASTM D1204, 212°F - 1 HR | 1.5% max.<br>each direction | |
| Adhesion - Heat Sealed Seam<br>ASTM D751, Dielectric Weld | 35 lb$_f$ /2 in min | 15 daN/ 5cm min. |
| Dead Load - Seam Shear Strength<br>ASTM D751 | 2 in. seam, 4 hr. 1 in. strip<br>210 lb$_f$ @ 70°F<br>105 lb$_f$ @ 160° F | 5 cm seam, 4 hr, 2.5 cm strip<br>934 N @ 21° C<br>467 N @ 70° C |
| Bursting Strength<br>ASTM D751 Ball Tip | 650 lb$_f$ Min.<br>800 lb$_f$ typical | 2892 N min.<br>3560 N Typical |
| Hydrostatic Resistance<br>ASTM D751, Method A | 800 psi min | 5.51 MPa min. |
| Blocking Resistance<br>ASTM D751 (180° F/ 82°C) | # 2 Rating Max | |
| Adhesion - Ply<br>ASTM D413 | 15 lb$_f$/in min<br>or film tearing bond | 13 daN/5cm min<br>or film tearing bond |
| Bonded Seam Strength<br>ASTM D751 as modified by NSF 54 | 550 lb$_f$ min. | 2447 N min. |
| Abrasion Resistance<br>ASTM D3389 (H-18 Wheel, 1000g Load) | 2000 cycles (min.) before fabric exposure<br>50 mg/100 cycles max weight loss | |
| Weathering Resistance<br>ASTM G23 (Carbon-Arc) | 8,000 hrs (min) - No appreciable changes<br>or stiffening or cracking of coating | |
| Water Absorption<br>ASTM D471, Section 12, 7 days | .025 kg/m$^2$ max. @ 70° F/21° C<br>.14 kg/m$^2$ max. @ 212° F/100° C | |
| Wicking - Shelter-Rite® Procedure | 1/8 in max. | 0.3 cm max. |
| Puncture Resistance<br>ASTM D4833 | 250 lb$_f$ min. | 1112 N min |
| Coefficient of Thermal | 8 x 10$^{-6}$ in/in/°F max. | 1.4 x 10$^{-5}$ cm/cm/ °C max. |