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Low Density Polyethylene (LLDPE)

Smooth Geomembrane Liners

| PROPERTIES | TEST METHOD | TEST VALUE | | | | | | | |
|---|--------------------|------------|----------|----------|----------|----------|----------|----------|----------|
| | | 20 MILS | 30 MILS | 40 MILS | 50 MILS | 60 MILS | 80 MILS | 100 MILS | 120 MILS |
| Thickness | ASTM D-5199 | 20 MILS | 30 MILS | 40 MILS | 50 MILS | 60 MILS | 80 MILS | 100 MILS | 120 MILS |
| Density g/ml (max.) | ASTM D1505 / D 792 | 0.939 | 0.939 | 0.939 | 0.939 | 0.939 | 0.939 | 0.939 | 0.939 |
| Tensile Properties | | | | | | | | | |
| - Break Strength – lb/in. | ASTM D-6693 | 76 | 114 | 152 | 190 | 228 | 304 | 380 | 456 |
| - Break Elongation - % | Type IV | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| 2% Modulus – lb/in. (max.) | ASTM D-5323 | 1200 | 1800 | 2400 | 3000 | 3600 | 4800 | 6000 | 7200 |
| Tear Resistance – lb (min. ave.) | ASTM D-1004 | 11 | 16 | 22 | 27 | 33 | 44 | 55 | 66 |
| Puncture Resistance – lb (min. ave.) | ASTM D-4833 | 28 | 42 | 56 | 70 | 84 | 112 | 140 | 168 |
| Axi-Symmetric Break Resistance Strain - % (min.) | ASTM D-5617 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Carbon Black Content - % | ASTM D-1603 | 2.0-3.0 | 2.0-3.0 | 2.0-3.0 | 2.0-3.0 | 2.0-3.0 | 2.0-3.0 | 2.0-3.0 | 2.0-3.0 |
| Carbon Black Dispersion | ASTM D-5596 | Note (1) | Note (1) | Note (1) | Note (1) | Note (1) | Note (1) | Note (1) | Note (1) |
| Oxidative Induction Time (OIT) (min. ave.) | | | | | | | | | |
| - (a) Standard OIT | ASTM D-3895 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| - (b) High Pressure OIT | ASTM D-5885 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| Oven aging at 85°C | ASTM D-5721 | | | | | | | | |
| - (a) Standard OIT (min. ave.) - % retained after 90 days | ASTM D-3895 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| - (b) High Pressure OIT (min. ave.) - % retained after 90 days | ASTM D-5885 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| UV Resistance | | | | | | | | | |
| - (a) Standard OIT (min. ave.) | ASTM D-3895 | N.R. (2) | N.R. (2) | N.R. (2) | N.R. (2) | N.R. (2) | N.R. (2) | N.R. (2) | N.R. (2) |
| - (b) High Pressure OIT (min. ave.) - % retained after 1600 hrs (3) | ASTM D-5885 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |

(1) Carbon black dispersion (only near spherical agglomerates) for 10 different views: 9 in Categories 1 or 2 and 1 in Category 3

(2) Not recommended since the high temperature of the Std-OIT test produces an unrealistic result for some of the antioxidants in the UV exposed samples.

(3) UV resistance is based on percent retained value regardless of the original HP-OIT value.

The above information is to the best of our knowledge accurate, but is not intended to be considered as a guarantee. Any implied warranty for a particular use or purpose is excluded. If the Product does not meet the above properties, and notice is given to US Fabrics, Inc., the product will be replaced or refunded. (1/2009).