

## Quadrant EPP Durapro® Truck Liners (ASTM Product Data Sheet)

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE

Material Notes:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Quadrant-EPP-Durapro-Truck-Liners-ASTM-Product-Data-Sheet.php](http://www.lookpolymers.com/polymer_Quadrant-EPP-Durapro-Truck-Liners-ASTM-Product-Data-Sheet.php)

| Physical Properties            | Metric     | English    | Comments                      |
|--------------------------------|------------|------------|-------------------------------|
| Specific Gravity               | 0.940 g/cc | 0.940 g/cc | ASTM D792                     |
| Water Absorption               | <= 0.010 % | <= 0.010 % | Immersion, 24hr; ASTM D570(2) |
| Water Absorption at Saturation | <= 0.010 % | <= 0.010 % | ASTM D 570(2)                 |

| Mechanical Properties            | Metric           | English         | Comments                                 |
|----------------------------------|------------------|-----------------|------------------------------------------|
| Hardness, Shore D                | 67               | 67              | ASTM D2240                               |
| Tensile Strength                 | 32.4 MPa         | 4700 psi        | ASTM D638                                |
| Elongation at Break              | 200 %            | 200 %           | ASTM D638                                |
| Tensile Modulus                  | 0.565 GPa        | 82.0 ksi        | ASTM D638                                |
| Flexural Strength                | 23.4 MPa         | 3400 psi        | ASTM D790                                |
| Flexural Modulus                 | 0.607 GPa        | 88.0 ksi        | ASTM D790                                |
| Compressive Strength             | 19.3 MPa         | 2800 psi        | 10% Def.; ASTM D695                      |
| Compressive Modulus              | 0.452 GPa        | 65.5 ksi        | ASTM D695                                |
| Shear Strength                   | 62.1 MPa         | 9000 psi        | ASTM D732                                |
| Izod Impact, Notched             | 18.69 J/cm       | 35.00 ft-lb/in  | ASTM D256                                |
| Coefficient of Friction, Dynamic | 0.080            | 0.080           | dry vs. steel; QTM55007                  |
| Sand Slurry                      | 15               | 15              | 1018 steel = 100; ASTM D4020             |
| Limiting Pressure Velocity       | 0.0701 MPa-m/sec | 2000 psi-ft/min | 4:1 safety factor applied; QTM 55010     |
| Abrasion                         | 130              | 130             | Sand Wheel; TIVAR® 1000 = 100; ASTM G-65 |

| Thermal Properties | Metric                                      | English                                     | Comments  |
|--------------------|---------------------------------------------|---------------------------------------------|-----------|
| CTE, linear        | 234 $\mu\text{m/m-}^{\circ}\text{C}$        | 130 $\mu\text{in/in-}^{\circ}\text{F}$      | ASTM E831 |
|                    | @Temperature -40.0 - 150 $^{\circ}\text{C}$ | @Temperature -40.0 - 302 $^{\circ}\text{F}$ |           |

| Thermal Properties                          | Metric             | English             | Comments   |
|---------------------------------------------|--------------------|---------------------|------------|
| Maximum Service Temperature, Air            | 82.2 °C            | 180 °F              | Continuous |
| Deflection Temperature at 1.8 MPa (264 psi) | 46.7 °C            | 116 °F              | ASTM D648  |
| Flammability, UL94                          | HB                 | HB                  |            |
|                                             | @Thickness 3.17 mm | @Thickness 0.125 in |            |

| Electrical Properties          | Metric                | English               | Comments       |
|--------------------------------|-----------------------|-----------------------|----------------|
| Surface Resistivity per Square | 1e+13 - 1e+15 ohm     | 1e+13 - 1e+15 ohm     | EOS/ESD S11.11 |
| Dielectric Constant            | 2.3                   | 2.3                   | ASTM D150      |
|                                | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz |                |
| Dissipation Factor             | <= 0.00050            | <= 0.00050            | ASTM D150      |
|                                | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz |                |

| Compliance Properties | Metric | English | Comments |
|-----------------------|--------|---------|----------|
| 3A-Dairy              | No     | No      |          |
| Canada AG             | No     | No      |          |
| FDA                   | No     | No      |          |
| NSF                   | No     | No      |          |
| USDA                  | No     | No      |          |
| USP Class VI          | No     | No      |          |

| Chemical Resistance Properties  | Metric       | English      | Comments |
|---------------------------------|--------------|--------------|----------|
| Acids, Strong (pH 1-3)          | Acceptable   | Acceptable   |          |
| Acids, Weak                     | Acceptable   | Acceptable   |          |
| Alcohols                        | Acceptable   | Acceptable   |          |
| Alkalies, Strong (pH 11-14)     | Acceptable   | Acceptable   |          |
| Alkalies, Weak                  | Acceptable   | Acceptable   |          |
| Chlorinated Solvents            | Unacceptable | Unacceptable |          |
| Conductive / Static Dissipative | No           | No           |          |

| <b>Continuous Sunlight<br/>Chemical Resistance Properties</b> | <b>Limited<br/>Metric</b> | <b>Limited<br/>English</b> | <b>Comments</b> |
|---------------------------------------------------------------|---------------------------|----------------------------|-----------------|
| Hot Water / Steam                                             | Limited                   | Limited                    |                 |
| Hydrocarbons - Aliphatic                                      | Unacceptable              | Unacceptable               |                 |
| Hydrocarbons - Aromatic                                       | Unacceptable              | Unacceptable               |                 |
| Inorganic Salt Solutions                                      | Acceptable                | Acceptable                 |                 |
| Ketones, Esters                                               | Unacceptable              | Unacceptable               |                 |

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