

## Saint-Gobain Tygothane® C-544-Al.B. Precision Polyurethane Pressure Tubing Formulation

Category: Polymer, Thermoplastic, Polyurethane, TP

## **Material Notes:**

Description: Tygothane® C-544-A I.B.: More flexible than many other reinforced urethane tubings, Tygothane® Pressure Tubing can be used in some of the most physically demanding applications, such as those requiring a tight bend radius. Specially formulated from tough, ether-based polyurethane resin, Tygothane® Pressure Tubing is resistant to a range of chemicals, including oils, greases, solvents and chemicals. Because of its excellent wear properties, Tygothane® Pressure Tubing frequently outperforms traditional rubber, plastic and metal materials when exposed to abrasive conditions. Tygothane® Pressure Tubing is also plasticizer free, and remains flexible even when cycled through temperature extremes. Features/Benefits: Exceptional abrasion and tear resistance Tough braid reinforcement for elevated working pressures Excellent resistance to oils, greases and fuels Retains flexibility in sub-zero environments Ideal for use with Tygopureâ,¢ reusable fittings Meets FDA and NSF 51 criteria for food contact Meets NSF 61 criteria for potable water contact Typical applications include Food and Cosmetic Processing, Abrasive and Viscous Slurry Transfer, Lubrication and Degreaser Dispensing, pellet and Powder Transfer, Pneumatic Sensory Devices, Instrumentation Control Lines, Coolant Recovery Systems. Information provided by Saint Gobain Performance Products.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Saint-Gobain-Tygothane-C-544-AIB-Precision-Polyurethane-Pressure-Tubing-Formulation.php

| Physical Properties | Metric    | English   | Comments                       |
|---------------------|-----------|-----------|--------------------------------|
| Specific Gravity    | 1.12 g/cc | 1.12 g/cc | ASTM D792-91                   |
| Water Absorption    | 1.8 %     | 1.8 %     | 24 hours at 23°C; ASTM D570-81 |

| Mechanical Properties   | Metric                  | English             | Comments                             |
|-------------------------|-------------------------|---------------------|--------------------------------------|
| Hardness, Shore A       | 85                      | 85                  | 15 seconds; ASTM D2240-91            |
| Tensile Strength, Yield | 34.5 MPa                | 5000 psi            | ASTM D412-92                         |
| Elongation at Break     | 400 %                   | 400 %               | ASTM D412-92                         |
| 100% Modulus            | 0.00552 GPa             | 0.800 ksi           | ASTM D412-92                         |
| 300% Modulus            | 0.00827 GPa             | 1.20 ksi            | ASTM D412-92                         |
| Tear Strength           | 61.4 kN/m               | 350 pli             | Initial Tear Strength; ASTM D1004-93 |
| Compression Set         | 19 %                    | 19 %                | Constant Deflection, for 22 hrs.;    |
|                         | @Temperature 70.0<br>°C | @Temperature 158 °F | ASTM D395-89 Method B                |
| Tensile Set             | 45 %                    | 45 %                | ASTM D412-92                         |

| Thermal Properties | Metric | English | Comments |  |
|--------------------|--------|---------|----------|--|
|--------------------|--------|---------|----------|--|



| Thermal Properties emperature, Air | Metric   | English | Comments     |
|------------------------------------|----------|---------|--------------|
| Brittleness Temperature            | -73.3 °C | -100 °F | ASTM D746-79 |

| Electrical Properties | Metric     | English   | Comments     |
|-----------------------|------------|-----------|--------------|
| Dielectric Strength   | 21.7 kV/mm | 550 kV/in | ASTM D149-93 |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
| Color                  | Clear |          |

## **Contact Songhan Plastic Technology Co.,Ltd.**

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