

## Technical Data Sheet

### Hyperzone HY44930



High Density Polyethylene

#### Product Description

Hyperzone HY44930 is a high density copolymer natural resin used by customers for conduit applications with demanding environmental stress crack resistance requirements. HY44930 offers an excellent balance of stiffness, environmental stress crack resistance, toughness, and ease of processing.

Conduit made with this resin is used with fiber optic cable, electrical cable, and telecommunications cable. HY44930 meets the material requirements for polyethylene conduit per ASTM F2160 and also meets the following requirements:

- ASTM D3350 Cell Classifications: **PE435530A** and **PE435580A**.

**Application** Conduit

**Processing Method** Pipe

| Typical Properties                           | Nominal Value | English Units     | Nominal Value | SI Units          | Test Method |
|--|---------------|-------------------|---------------|-------------------|-------------|
| <b>Physical</b>                              |               |                   |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)             | 0.32          | g/10 min          | 0.32          | g/10 min          | ASTM D1238  |
| Density, (23 °C)                             | 0.949         | g/cm <sup>3</sup> | 0.949         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>                            |               |                   |               |                   |             |
| Flexural Modulus, (2% Secant)                | 142400        | psi               | 980           | MPa               | ASTM D790   |
| Tensile Stress at Yield                      | 3620          | psi               | 25.0          | MPa               | ASTM D638   |
| Tensile Elongation at Break                  | >600          | %                 | >600          | %                 | ASTM D638   |
| <b>Environmental Stress Crack Resistance</b> |               |                   |               |                   |             |
| F <sub>10</sub> (10% Igepal®, Cond B)        | >110          | hr                | >110          | hr                | ASTM D1693  |
| F <sub>50</sub> (10% Igepal®, Cond B)        | >150          | hr                | >150          | hr                | ASTM D1693  |
| F <sub>50</sub> (100% Igepal®, Cond B)       | >1000         | hr                | >1000         | hr                | ASTM D1693  |
| <b>Thermal</b>                               |               |                   |               |                   |             |
| Low Temperature Brittleness, F <sub>50</sub> | <-105         | °F                | <-76          | °C                | ASTM D746   |
| DSC Induction Temperature                    | >464          | °F                | >240          | °C                | ASTM D3350  |

## Notes

These are typical property values not to be construed as specification limits.

## Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

## Company Information

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