

## Spartech PE4312 Reinforced High Density Polyethylene Compound

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

### Material Notes:

Spartech Polycom's filled high molecular weight, high density polyethylenes are specifically designed for blow molding and sheet extrusion /thermoforming of structural parts. These materials offer an excellent balance of stiffness, impact resistance and dimensional stability.

Typical applications for blow molding grades include automotive seat cores, heating ducts, and recreational products such as ice chests. Information provided by Spartech

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Spartech-PE4312-Reinforced-High-Density-Polyethylene-Compound.php](http://www.lookpolymers.com/polymer_Spartech-PE4312-Reinforced-High-Density-Polyethylene-Compound.php)

| Physical Properties   | Metric                                | English                            | Comments       |
|-----------------------|---------------------------------------|------------------------------------|----------------|
| Specific Gravity      | 1.04 g/cc<br>@Temperature 22.8<br>Â°C | 1.04 g/cc<br>@Temperature 73.0 Â°F | ASTM D792      |
| Filler Content        | 12 %                                  | 12 %                               | Mica           |
| Linear Mold Shrinkage | 0.018 cm/cm                           | 0.018 in/in                        | 0.125inch wall |

| Mechanical Properties   | Metric                                | English                                | Comments            |
|-------------------------|---------------------------------------|--|---------------------|
| Tensile Strength, Yield | 30.3 MPa                              | 4400 psi                               | ASTM D638           |
| Elongation at Break     | 20 %                                  | 20 %                                   | ASTM D638           |
| Elongation at Yield     | 8.0 %                                 | 8.0 %                                  | ASTM D638           |
| Flexural Strength       | 40.0 MPa                              | 5800 psi                               | Max Load; ASTM D790 |
| Flexural Modulus        | 1.10 GPa                              | 160 ksi                                | secant; ASTM D790   |
|                         | 1.52 GPa                              | 220 ksi                                | tangent; ASTM D790  |
| Izod Impact, Notched    | 2.67 J/cm<br>@Temperature 22.8<br>Â°C | 5.00 ft-lb/in<br>@Temperature 73.0 Â°F | ASTM D256           |
| Gardner Impact          | 10.8 J<br>@Temperature -5.56<br>Â°C   | 8.00 ft-lb<br>@Temperature 22.0 Â°F    | ASTM D5420          |
|                         | >= 33.9 J<br>@Temperature 22.8<br>Â°C | >= 25.0 ft-lb<br>@Temperature 73.0 Â°F | ASTM D5420          |

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

| Thermal Properties<br>Deflection Temperature at 0.46 MPa<br>(66 psi) | Metric °C | English | Comments  |
|--|-----------|---------|-----------|
| Deflection Temperature at 1.8 MPa<br>(264 psi)                       | 43.3 °C   | 110 °F  | ASTM D648 |

## Contact Songhan Plastic Technology Co.,Ltd.

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