

## Styron Magnum® 3453 Acrylonitrile Butadiene Styrene (ABS)

Category : Polymer , Thermoplastic , ABS Polymer

### Material Notes:

MAGNUM® 3453 ABS is a general purpose injection molding resin suitable for a wide range of applications. Information provided by Dow. This product line was spun off from Dow Chemical to Styron in 2010.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styron-Magnum-3453-Acrylonitrile-Butadiene-Styrene-ABS.php](http://www.lookpolymers.com/polymer_Styron-Magnum-3453-Acrylonitrile-Butadiene-Styrene-ABS.php)

| Physical Properties   | Metric  | English   | Comments  |
|-----------------------|---|---|-----------|
| Bulk Density          | 0.650 g/cc  | 0.0235 lb/in <sup>3</sup>                           | ISO 60    |
| Density               | 1.05 g/cc   | 0.0379 lb/in <sup>3</sup>                           | ISO 1183B |
| Linear Mold Shrinkage | 0.0040 - 0.0070 cm/cm                               | 0.0040 - 0.0070 in/in                               | ISO 294   |
| Melt Flow             | 15 g/10 min<br>@Load 10.0 kg,<br>Temperature 220 °C | 15 g/10 min<br>@Load 22.0 lb,<br>Temperature 428 °F | ISO 1133  |

| Mechanical Properties      | Metric   | English  | Comments                       |
|----------------------------|--|--|--------------------------------|
| Tensile Strength, Yield    | 45.0 MPa   | 6530 psi   | 50mm/min; ISO 527-2            |
| Elongation at Yield        | 2.5 %  | 2.5 %  | 50mm/min; ISO 527-2            |
| Tensile Modulus            | 2.28 GPa   | 331 ksi  | ISO 527-2                      |
| Flexural Strength          | 68.0 MPa   | 9860 psi   | 3 points and 2 mm/min; ISO 178 |
| Flexural Modulus           | 2.30 GPa   | 334 ksi  | 3 points and 2 mm/min; ISO 178 |
| Izod Impact, Notched (ISO) | 9.00 kJ/m <sup>2</sup><br>@Temperature -30.0<br>°C | 4.28 ft-lb/in <sup>2</sup><br>@Temperature -22.0<br>°F | ISO 180/A                      |
|                            | 19.0 kJ/m <sup>2</sup><br>@Temperature 23.0<br>°C  | 9.04 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F     | ISO 180/A                      |
| Charpy Impact, Notched     | 1.00 J/cm <sup>2</sup><br>@Temperature -30.0<br>°C | 4.76 ft-lb/in <sup>2</sup><br>@Temperature -22.0<br>°F | ISO 179-1/1eA                  |
|                            | 2.00 J/cm <sup>2</sup><br>@Temperature 23.0<br>°C  | 9.52 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F     | ISO 179-1/1eA                  |

| Thermal Properties                          | Metric             | English              | Comments   |
|---|--------------------|----------------------|--|
| Deflection Temperature at 1.8 MPa (264 psi) | 100 Â°C            | 212 Â°F              | annealed; ISO 75-A                               |
| Vicat Softening Point                       | 97.0 Â°C           | 207 Â°F              | 50Â°C/hr, 50N; ISO 306-B50                       |
| Flammability, UL94                          | HB                 | HB                   |  |
|   | @Thickness 1.50 mm | @Thickness 0.0591 in |  |
|   | HB                 | HB                   |  |
|   | @Thickness 3.00 mm | @Thickness 0.118 in  |  |
| Flame Spread                                | 55 mm/min          | 2.2 in/min           | Horizontal Burning Speed 2mm thickness; ISO 3795 |
| Flammability Test                           | 25                 | 25                   | [Âµg/g] Carbon Emission; VDA 277                 |

| Optical Properties | Metric | English | Comments  |
|--------------------|--------|---------|-----------|
| Haze               | 97 %   | 97 %    | ISO 294-4 |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China