

## **American Polymers API 545 Polystyrene**

Category: Polymer, Thermoplastic, Polystyrene (PS), Polystyrene, Impact Modified

## **Material Notes:**

API 545 is a high impact, high heat resistant grade of impact modified polystyrene. This material features fast set-up as well as easy colorability. Applications: API 545 is suggested for heavy parts with large cross section requiring high impact resistance. Housings, tote bins, shoe heels are some examples. Information provided by American Polymers, Inc.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_American-Polymers-API-545-Polystyrene.php

| Physical Properties | Metric       | English       | Comments                |
|---------------------|--------------|---------------|-------------------------|
| Density             | 1.04 g/cc    | 0.0376 lb/in³ | ASTM D792               |
| Melt Flow           | 5.5 g/10 min | 5.5 g/10 min  | Condition G; ASTM D1238 |

| Mechanical Properties      | Metric             | English             | Comments                           |
|----------------------------|--------------------|---------------------|------------------------------------|
| Hardness, Rockwell L       | 47                 | 47                  | ASTM D785                          |
| Tensile Strength, Ultimate | 27.6 MPa           | 4000 psi            | ASTM D638                          |
| Elongation at Break        | 58 %               | 58 %                | ASTM D638                          |
| Tensile Modulus            | 1.93 GPa           | 280 ksi             | ASTM D638                          |
| Flexural Modulus           | 2.10 GPa           | 305 ksi             | ASTM D790                          |
| Izod Impact, Notched       | 1.01 J/cm          | 1.90 ft-lb/in       | injection molded sample; ASTM D256 |
|                            | @Thickness 3.17 mm | @Thickness 0.125 in |                                    |

| Thermal Properties                          | Metric  | English | Comments            |
|---|---------|---------|---------------------|
| Deflection Temperature at 1.8 MPa (264 psi) | 87.8 °C | 190 °F  | Annealed; ASTM D648 |
| Vicat Softening Point                       | 98.9 °C | 210 °F  | ASTM D1525          |

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

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