

# Product Data

## TITANPRO SM398 FOR INJECTION MOLDING

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CHARACTER</b>    | <p>Polypropylene random copolymer.</p> <p>Titanpro SM398 is a clarified grade designed for high transparency articles. The base resin meets the requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520(a)(3)(i) and (c)3.1a. The adjuvant meet their respective FDA regulations and 21 CFR 177.1520(b). In summary, this resin meets the FDA criteria covering safe use of polyolefin articles and component of articles intended for food contact use.</p> <p>TSCA Registry: CAS# 9010-79-1</p> |
| <b>APPLICATIONS</b> | High transparency containers, housewares, stationeries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ADVANTAGES</b>   | <p>Excellent clarity.</p> <p>Low blooming.</p> <p>Good surface finish and color.</p> <p>Cycle time reduction with low processing melt temperature.</p> <p>Utilities cost saving.</p> <p>Good balance of rigidity and impact resistance.</p>                                                                                                                                                                                                                                                                                     |
| <b>FABRICATION</b>  | <p>Equipment - ram and screw injection machines.</p> <p>Techniques - standard processing.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| <u>TYPICAL RESIN PROPERTIES</u> <sup>(a)</sup>        | <u>UNIT</u>        | <u>TITANPRO SM398</u> | <u>ASTM METHOD</u> <sup>(b)</sup> |
|-------------------------------------------------------|--------------------|-----------------------|-----------------------------------|
| Melt Flow Rate, at 230°C                              | g/10 min           | <b>10.5</b>           | D1238                             |
| Density                                               | g/cm <sup>3</sup>  | <b>0.9</b>            | D1505                             |
| Tensile Strength at Yield                             | kg/cm <sup>2</sup> | <b>270</b>            | D638                              |
| Elongation at Yield                                   | %                  | <b>14</b>             | D638                              |
| Flexural Modulus                                      | kg/cm <sup>2</sup> | <b>10500</b>          | D790B                             |
| Notched Izod Impact Strength at 23°C                  | kg-cm/cm           | <b>6</b>              | D256A                             |
| Heat Deflection Temperature at 4.6 kg/cm <sup>2</sup> | °C                 | <b>80</b>             | D648                              |
| Rockwell Hardness                                     | R scale            | <b>80</b>             | D785A                             |
| Water absorption after 24 hours                       | %                  | <b>0.02</b>           | D570                              |

(a) Values shown are average and are not to be considered as specifications.

(b) ASTM test methods are latest under the Society's current procedures.

Shrinkage : 1.3 - 1.4% depending on the product wall thickness and molding parameters.

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