

# PULSE™ A35-105

PC/ABS Engineering Resin

Trinseo

# PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

PULSE A35-105 engineering resins give exceptional impact strength even at low temperatures and have a high heat distortion temperature.

#### Applications:

PULSE A35-105 is used in a wide range of applications where a balance of low temperature toughness, high heat distortion, and easy processing are required. Some examples are automotive instrument panels, automotive interior/exterior trim, small appliance and electrical applications.

### General

|                           |   |
|---------------------------|---|
| Material Status           | • Commercial: Active  |
| Literature <sup>1</sup>   | • <a href="#">Technical Datasheet</a>   |
| Search for UL Yellow Card | • <a href="#">Trinseo</a><br>• <a href="#">PULSE™</a>   |
| Availability              | • Asia Pacific<br>• Europe  |
| Features                  | • Good Processability<br>• Good Toughness<br>• High Impact Resistance<br>• Low Temperature Impact Resistance                      |
| Uses                      | • Automotive Applications<br>• Automotive Instrument Panel<br>• Automotive Interior Parts<br>• Electrical/Electronic Applications |
| Forms                     | • Pellets   |
| Processing Method         | • Extrusion<br>• Injection Molding  |

| Physical                         | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|----------------------------------|-------------------------|------------------------|-------------|
| Density                          | 1.12 g/cm <sup>3</sup>  | 1.12 g/cm <sup>3</sup> | ISO 1183/A  |
| Melt Mass-Flow Rate (MFR)        |                         |                        | ASTM D1238  |
| 230°C/3.8 kg                     | 3.0 g/10 min            | 3.0 g/10 min           |             |
| 250°C/5.0 kg                     | 12 g/10 min             | 12 g/10 min            |             |
| 260°C/5.0 kg                     | 17 g/10 min             | 17 g/10 min            |             |
| Molding Shrinkage - Flow         | 3.0E-3 to 7.0E-3 in/in  | 0.30 to 0.70 %         | ASTM D955   |
| Water Absorption                 |                         |                        | ISO 62      |
| Equilibrium, 73°F (23°C), 50% RH | 0.20 to 0.60 %          | 0.20 to 0.60 %         |             |

| Mechanical             | Nominal Value (English) | Nominal Value (SI) | Test Method |
|------------------------|-------------------------|--------------------|-------------|
| Tensile Modulus        | 319000 psi              | 2200 MPa           | ISO 527-2   |
| Tensile Stress         |                         |                    | ISO 527-2/5 |
| Yield                  | 7540 psi                | 52.0 MPa           |             |
| Break                  | 7250 psi                | 50.0 MPa           |             |
| Tensile Strain (Break) | > 80 %                  | > 80 %             | ISO 527-2/5 |
| Flexural Modulus       | 305000 psi              | 2100 MPa           | ISO 178     |
| Flexural Stress        | 11900 psi               | 82.0 MPa           | ISO 178     |

| Impact                         | Nominal Value (English)  | Nominal Value (SI)   | Test Method |
|--------------------------------|--------------------------|----------------------|-------------|
| Charpy Notched Impact Strength |                          |                      | ISO 179/1eA |
| -22°F (-30°C)                  | 21 ft·lb/in <sup>2</sup> | 45 kJ/m <sup>2</sup> |             |
| 73°F (23°C)                    | 24 ft·lb/in <sup>2</sup> | 50 kJ/m <sup>2</sup> |             |

| Hardness                  | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------------------------|-------------------------|--------------------|-------------|
| Ball Indentation Hardness | 15200 psi               | 105 MPa            | DIN 53459   |

| Thermal                       | Nominal Value (English) | Nominal Value (SI) | Test Method  |
|-------------------------------|-------------------------|--------------------|--------------|
| Heat Deflection Temperature   |                         |                    |              |
| 66 psi (0.45 MPa), Unannealed | 259 °F                  | 126 °C             | ISO 75-2/B   |
| 264 psi (1.8 MPa), Unannealed | 221 °F                  | 105 °C             | ISO 75-2/A   |
| Vicat Softening Temperature   |                         |                    |              |
| --                            | 288 °F                  | 142 °C             | ISO 306/A120 |
| --                            | 252 °F                  | 122 °C             | ISO 306/B50  |



| Thermal   | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
|---|---------------------------|---------------------------|-----------------|
| CLTE - Flow (32 to 176°F (0 to 80°C))           | 4.2E-5 to 4.4E-5 in/in/°F | 7.5E-5 to 8.0E-5 cm/cm/°C | ASTM D696       |
| Thermal Conductivity                            | 1.4 Btu·in/hr/ft²/°F      | 0.20 W/m/K                | ASTM C177       |
| Flammability                                    | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
| Flame Rating <sup>3</sup> (0.0630 in (1.60 mm)) | HB                        | HB                        | Internal Method |
| Oxygen Index <sup>3</sup>                       | 20 %                      | 20 %                      | ASTM D2863      |
| Injection                                       | Nominal Value (English)   | Nominal Value (SI)        |                 |
| Processing (Melt) Temp                          | 500 to 554 °F             | 260 to 290 °C             |                 |
| Mold Temperature                                | 158 to 194 °F             | 70.0 to 90.0 °C           |                 |

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



---

Where to Buy

---

Supplier

**Trinseo**  
USA  
**Telephone:** 888-789-7661  
**Web:** <http://www.trinseo.com/>

---

Distributor

**Nexeo Solutions - Europe**

*Nexeo Solutions is a Pan European distribution company. Contact Nexeo for availability of individual products by country.*

**Telephone:** +34-93-480-9125

**Web:** <http://www.nexeosolutions.com/>

**Availability:** Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Russian Federation, Spain, Sweden, Switzerland, United Kingdom

**RESINEX Group**

*RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.*

**Telephone:** +32-14-672511

**Web:** <http://www.resinex.com/>

**Availability:** Europe

