

# HiDura™ PTR 842A NT0733

copolyamide 66/6



HiDura PTR 842A NT0733 is a high-viscosity polyamide copolymer resin designed for extrusion applications. This product is available in natural only. It offers a well-balanced combination of properties characterized by high melt point, high strength, flexibility, toughness, and good chemical resistance. Its reduced crystallization rate vs PA66 combined and high melt point make it an ideal solution for film applications requiring good process-ability and high heat resistance.

## General

|                       |                                                                 |                                           |                                          |
|-----------------------|-----------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| Regional Availability | • North America                                                 | • Europe                                  | • Asia Pacific                           |
| Features              | • Chemical Resistant<br>• High Strength<br>• Puncture Resistant | • High Melt Stability<br>• High Toughness | • High Melt Strength<br>• High Viscosity |
| Agency Rating         | • ASTM, D6779<br>• EC, 1935/2004                                | • FDA, 21 CFR 177.1500<br>• EU, 10/2011   | • ASTM, D4066<br>• EU, 2023/2006         |
| Appearance            | • Natural Color                                                 |                                           |                                          |
| Forms                 | • Pellets                                                       |                                           |                                          |

## Physical

|                                    | dry   | cond. | Unit              | Test Standard |
|------------------------------------|-------|-------|-------------------|---------------|
| Density                            | 1.13  | -     | g/cm <sup>3</sup> | ISO 1183      |
| Molding Shrinkage                  |       |       |                   | ISO 294-4     |
| Across Flow : 23°C, 2.00 mm        | 1.7   | *     | %                 |               |
| Flow : 23°C, 2.00 mm               | 1.8   | *     | %                 |               |
| Water Absorption                   |       |       |                   | ISO 62        |
| 23°C, 24 hr                        | 2.2   | *     | %                 |               |
| Equilibrium, 23°C, 50% RH          | 2.3   | *     | %                 |               |
| Water Absorption, Saturation, 23°C | 10    |       | %                 | ISO 62        |
| Relative Viscosity, Sulphuric Acid | 4.1   |       | -                 | ISO 307       |
| Moisture Content                   | ≤ 0.1 |       | %                 | ASTM D 6869   |

## Mechanical

|                              | dry  | cond. | Unit | Test Standard |
|------------------------------|------|-------|------|---------------|
| Tensile Modulus (23°C)       | 2700 | 1200  | MPa  | ISO 527-2     |
| Tensile Stress (Yield, 23°C) | 80   | 69    | MPa  | ISO 527-2     |
| Tensile Strain (Break, 23°C) | 161  | 278   | %    | ISO 527-2     |
| Flexural Modulus (23°C)      | 2700 | 922   | MPa  | ISO 178       |
| Flexural Strength (23°C)     | 85   | -     | MPa  | ISO 178       |

## Impact

|                                | dry | cond. | Unit              | Test Standard |
|--------------------------------|-----|-------|-------------------|---------------|
| Charpy Notched Impact Strength |     |       |                   | ISO 179/1eA   |
| +23°C                          | 5.4 | 10    | kJ/m <sup>2</sup> |               |
| -30°C                          | 4.9 | 4.5   | kJ/m <sup>2</sup> |               |
| -40°C                          | 5   | 4.7   | kJ/m <sup>2</sup> |               |

# HiDura™ PTR 842A NT0733

copolyamide 66/6



## Charpy Unnotched Impact Strength

ISO 179/1eU

|       |   |   |       |
|-------|---|---|-------|
| +23°C | N | N | kJ/m² |
| -30°C | N | N | kJ/m² |
| -40°C | N | N | kJ/m² |

## Notched Izod Impact Strength

ISO 180/1A

|       |     |     |       |
|-------|-----|-----|-------|
| +23°C | 4.9 | 8.4 | kJ/m² |
| -30°C | 5.6 | 6.4 | kJ/m² |
| -40°C | 5.4 | 5.4 | kJ/m² |

| Thermal             | dry | cond. | Unit | Test Standard |
|---------------------|-----|-------|------|---------------|
| Melting Temperature | 253 | *     | °C   | ISO 11357-3   |

| Extrusion            | Value     | Unit |
|----------------------|-----------|------|
| Cylinder Zone 1 Temp | 285 - 300 | °C   |
| Cylinder Zone 2 Temp | 285 - 300 | °C   |
| Cylinder Zone 3 Temp | 280 - 295 | °C   |
| Cylinder Zone 4 Temp | 270 - 285 | °C   |
| Cylinder Zone 5 Temp | 265 - 280 | °C   |
| Melt temperature     | 280 - 300 | °C   |
| Die temperature      | 280 - 300 | °C   |

**HiDURA™**