

## ColorRx® TPEU9500-85A-RX

Americhem - Thermoplastic Polyurethane Elastomer

### General Information

#### Product Description

TPEU9500-85A-RX is an injection molding grade of aromatic polyether-based thermoplastic polyurethane (TPU) with Shore-A hardness of 85. It has good chemical and wear resistance and good low temperature flexibility. Suitable for healthcare applications.

#### General

|                   |                                          |                                                           |                          |
|-------------------|------------------------------------------|-----------------------------------------------------------|--------------------------|
| Material Status   | • Commercial: Active                     |                                                           |                          |
| Availability      | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America                               | • North America          |
| Features          | • Biocompatible<br>• E-beam Sterilizable | • Ethylene Oxide Sterilizable<br>• Excellent Colorability | • Radiation Sterilizable |
| Uses              | • Engineering Parts                      | • Medical/Healthcare Applications                         | • Surgical Instruments   |
| Agency Ratings    | • ISO 10993-1                            |                                                           |                          |
| Forms             | • Pellets                                |                                                           |                          |
| Processing Method | • Injection Molding                      |                                                           |                          |

### Properties <sup>1</sup>

| Physical                              | Nominal Value | Unit  | Test Method |
|---------------------------------------|---------------|-------|-------------|
| Density / Specific Gravity            | 1.12          |       | ASTM D792   |
| Molding Shrinkage - Flow              | 8.0E-3        | in/in | ASTM D955   |
| Mechanical                            | Nominal Value | Unit  | Test Method |
| Flexural Modulus <sup>2</sup>         | 4300          | psi   | ASTM D790   |
| Elastomers                            | Nominal Value | Unit  | Test Method |
| Tensile Strength <sup>2</sup> (Break) | 5300          | psi   | ASTM D412   |
| Tensile Elongation (Break)            | 610           | %     | ASTM D412   |
| Hardness                              | Nominal Value | Unit  | Test Method |
| Durometer Hardness (Shore A)          | 85            |       | ASTM D2240  |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 200 to 220    | °F   |
| Drying Time            | 2.0           | hr   |
| Rear Temperature       | 350 to 380    | °F   |
| Middle Temperature     | 360 to 390    | °F   |
| Front Temperature      | 360 to 400    | °F   |
| Nozzle Temperature     | 365 to 400    | °F   |
| Processing (Melt) Temp | 380 to 410    | °F   |
| Mold Temperature       | 60 to 110     | °F   |
| Back Pressure          | 800           | psi  |
| Screw Speed            | 40 to 80      | rpm  |

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min

