

P400S

Product Description

EL-Pro P400S is a homopolymer polypropylene resin which is suitable for monofilament and flat yarn products. Which is manufactured by extrusion process with spinnerette die, annular die, T-die, coathanger die, etc.

Typical Application

- Small-sized woven bag
- Rope, Strap
- Tarpaulin, Sheet

Product Characteristics

- High productivity
- Good mechanical properties
- Food contact applicable (Complies with U.S FDA 21 CFR 177.1520)

Physical Properties

Property	Test Method	Value	Unit
Melt Flow Rate	ASTM D 1238 @ 230°C, 2.16 kg	3.5	g/10 min
Density	ASTM D 1505	0.910	g/cm ³
Tensile Strength at Yield	ASTM D 638 @ Crosshead speed 50 mm/min	320	kg/cm ²
Tensile Strength at Break	ASTM D 638 @ Crosshead speed 50 mm/min	250	kg/cm ²
Elongation at Break	ASTM D 638 @ Crosshead speed 50 mm/min	650	%
Flexural Modulus	ASTM D 790	13500	kg/cm ²
Notched Izod Impact	ASTM D 256 @ 23°C	4	kg.cm/cm
Notched Izod Impact	ASTM D 256 @ 0°C	2.5	kg.cm/cm
Notched Izod Impact	ASTM D 256 @ -20°C	1.7	kg.cm/cm
Rockwell Hardness	ASTM D 785	85	R-Scale
Haze	ASTM D 1003	50	%
Gloss	ASTM D 2457	65	%
ESCR	ASTM D 1693 @ 50°C (Condition B, Injection Molded, 25% Igepal)	>500	hrs, F ₅₀
Melting Point	ASTM D 2117	163	°C
Vicat Softening Point	ASTM D 1525	155	°C
Heat Deflection Temperature (HDT)	ASTM D 648 @ 4.6 kg/cm ²	110	°C
	ASTM D 648 @ 18.5kg/cm ²	60	°C

Note : Conversion factor for changing unit from kg/cm² to MPa is divided by 10.20

Processing Techniques

The actual processing conditions depend on each machine type, product dimensions and environment.

Generally, recommended screen mesh size 100-120 and allowable pressure should be less than 135 bar.

Recommended processing conditions:

Monofilament : Melt temperature range 250 - 280°C, Stretching Temperature 95 - 110°C, Stretching Ratio 8 - 12

Flat yarn: Melt temperature range 220 - 270°C, Stretching Temperature 120 - 140°C, Stretching Ratio 5 - 7

Product Technical Assistance

For technical assistance or further information on this product or any other SCG Chemicals' products contact your SCG Chemicals technical service at the address or telephone number as specified below.

Product Available Form

- Pellet

Product Packaging

- 25 kg loose bag
- Big Bag with specified weight

Storage

- Store in original container in tidy according to the manual of Handling and Storage from Thai Polyethylene Company Limited/ Thai Polypropylene Company Limited.
- Product(s) should be stored in dry and dust free location at temperature below 50°C and protected from direct sunlight and/or heat, well-ventilated area, away from incompatible materials and food and drink, as this may lead to quality deterioration, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.
- Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
- The storage area should be stable and not be slopped.

Safety

- The product is not classified as a hazardous material.
- Please see our Material Safety Data Sheet for details on various aspects of safety, recovery, and disposal of the products; for more information, contact your SCG Plastics/SCG Performance Chemicals technical service.

Recycling

- The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.
- Please see our Material Safety Data Sheet for details on various aspects of safety, recovery and disposal of the products; for more information, contact your SCG Plastics/SCG Performance Chemicals technical service.

Related Documents

- The latest version of this document will be available at our website, www.chemicals.scg.co.th, or can be obtained from the SCG Plastics/SCG Performance Chemicals technical service.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
 - Material Safety Data Sheet
 - Statement on compliance to food contact regulations

Disclaimer

- The product can be used only for the application as specified hereabove.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.
- We make no warranties which extend beyond the description contained herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
- It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.
- No liability can be accepted in respect of the use of our products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.