

# P440J

## Product Description

EL-Pro P440J is an impact copolymer polypropylene resin suitable for injection molding process. This resin is recommended for product that requires high impact strength with good processibility.

## Typical Application

- Pail, Crates, Industrial uses
- Automotive and electrical appliance parts
- Furniture, Containers

## Product Characteristics

- High impact strength
- Good processibility and stiffness
- 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	5	g/10 min
Density	ASTM D 1505	0.910	g/cm <sup>3</sup>
Tensile Strength at Yield	ASTM D 638 @ Crosshead speed 50 mm/min	270	kg/cm <sup>2</sup>
Tensile Strength at Break	ASTM D 638 @ Crosshead speed 50 mm/min	200	kg/cm <sup>2</sup>
Elongation at Break	ASTM D 638 @ Crosshead speed 50 mm/min	520	%
Flexural Modulus	ASTM D 790	11500	kg/cm <sup>2</sup>
Notched Izod Impact	ASTM D 256 @ 23°C	12	kg.cm/cm
Notched Izod Impact	ASTM D 256 @ 0°C	6	kg.cm/cm
Notched Izod Impact	ASTM D 256 @ -20°C	5	kg.cm/cm
Rockwell Hardness	ASTM D 785	60	R-Scale
Haze	ASTM D 1003	80	%
Gloss	ASTM D 2457	30	%
Melting Point	ASTM D 2117	163, 120	°C
Vicat Softening Point	ASTM D 1525	150	°C
Heat Deflection Temperature (HDT)	ASTM D 648 @ 4.6 kg/cm <sup>2</sup>	100	°C
Heat Deflection Temperature (HDT)	ASTM D 648 @ 18.5 kg/cm <sup>2</sup>	55	°C
Brittleness Temperature	ASTM D 746	-20	°C
% Shrinkage (2mmt) MD	TPE Method	1.19	%
TD	TPE Method	1.05	%
Flamability	UL - 94	HB	-

Note : Conversion factor for changing unit from kg/cm<sup>2</sup> to MPa is divided by 10.20

## Processing Techniques

The actual processing conditions depend on each machine type, product size, mold design and environment.

Recommended processing conditions:

Melt temperature: 230-270°C      Mold temperature: 25-70°C      Injection speed: Fas      Screw speed 40-70 rpm of Max. Pressure  
Pressure: Injection 40-80%, Packing and Holding 30-60%, Back 10%

## Product Technical Assistance

For technical assistance or further information on this product or any other EL-Pro products, please contact EL-Pro representatives.

## Product Available Form

## Product Packaging

- Pellet
- 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.
- 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 sloped.

## 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 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 product, for more information contact your SCG Chemicals technical service.

## Related Documents

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

- This product(s) 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 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.
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