

## Product Description

EL-Pro P842J is an impact copolymer polypropylene resin suitable for injection molding process.

This resin is recommended for product that requires very high stiffness and very high processibility.

## Typical Application

- Washing machine parts such as tub, base, panel
- Electrical appliance parts
- Refrigerator parts

## Product Characteristics

- Very high stiffness, very high processibility
- Good impact strength and dimension stability
- 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           | 40       | 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 | 295      | kg/cm <sup>2</sup> |
| Tensile Strength at Break         | ASTM D 638 @ Crosshead speed 50 mm/min | 180      | kg/cm <sup>2</sup> |
| Elongation at Break               | ASTM D 638 @ Crosshead speed 50 mm/min | 60       | %                  |
| Flexural Modulus                  | ASTM D 790                             | 14500    | kg/cm <sup>2</sup> |
| Notched Izod Impact               | ASTM D 256 @ 23°C                      | 6        | kg.cm/cm           |
| Notched Izod Impact               | ASTM D 256 @ 0°C                       | 4.5      | kg.cm/cm           |
| Notched Izod Impact               | ASTM D 256 @ -20°C                     | 3.5      | kg.cm/cm           |
| Rockwell Hardness                 | ASTM D 785                             | 80       | 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>    | 115      | °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 (2mm) MD              | TPE Method                             | 1.44     | %                  |
| TD                                | TPE Method                             | 1.30     | %                  |
| 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: Fast | Screw speed 40-70 rpm |
| Pressure: Injection 40-80%, | Packing and Holding 30-60%, | Back 10%              | of Max. Pressure      |

## 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

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Page 1 of 2

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## 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](http://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.

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