



## Technical Data Sheet

# PARALOID™ EXL-2388 Impact Modifier

### Description

PARALOID™ EXL-2388 Impact Modifier is a general-purpose acrylic core-shell impact modifier, it has a cross-linked poly (butyl acrylate) core with a grafted poly-methyl methacrylate shell. This core-shell structure endows the product good compatibility, excellent toughness and easy dispersion performance with polycarbonate, polyesters, and their blends.

### Application

PARALOID™ EXL-2388 Impact Modifier can improve impact properties of the following engineering resins: Polycarbonate (PC), Polyesters (PET, PBT), blends of these thermoplastics, and glass fiber reinforced systems. PARALOID™ EXL-2388 finds utility in a variety of conversion processes typically encountered for engineering resins, including extrusion, injection molding, blow molding, and thermoforming.

### Regional Product availability

- Asia Pacific

### Typical properties

PARALOID™ EXL-2388 Impact Modifier is supplied as a free-flowing powder

PARALOID™ EXL-2388	
Physical appearance	White powder
Bulk density (g/cm <sup>3</sup> )	0.4 – 0.6
Volatiles (%)	≤1.0
Fines level, through 45 micron (%)	≤ 7%

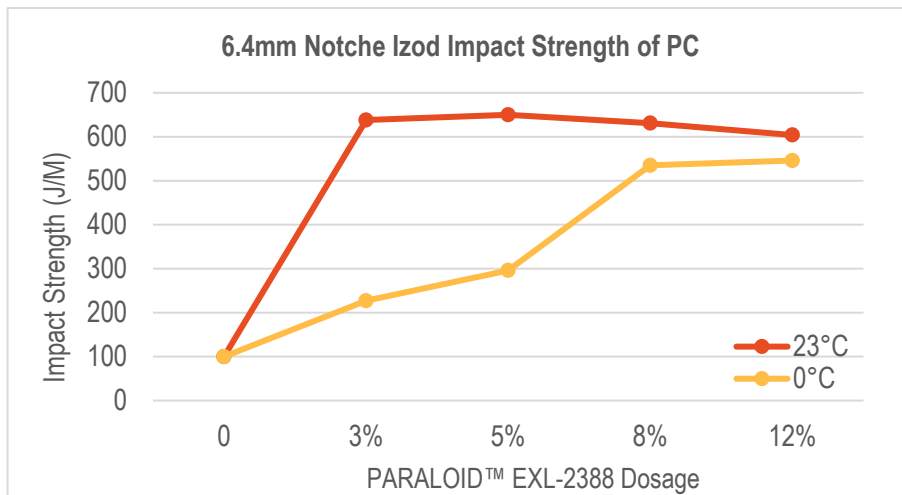
### Key attributes

- Excellent impact resistance.
- Excellent weatherability.
- Minor effect on modulus, heat distortion temperature, melt flow index, and so on.

### Product performance

#### Toughness of Polycarbonate

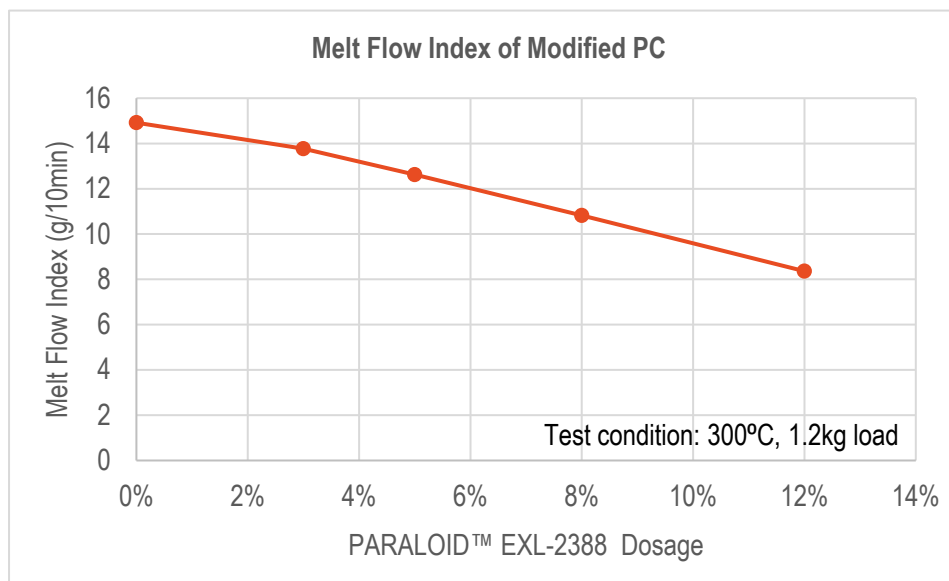
The toughness of polycarbonate can be significantly improved at low temperatures by the addition of PARALOID™ EXL-2388 Impact Modifier, without impairing significantly other thermo-mechanical properties or melt flow.





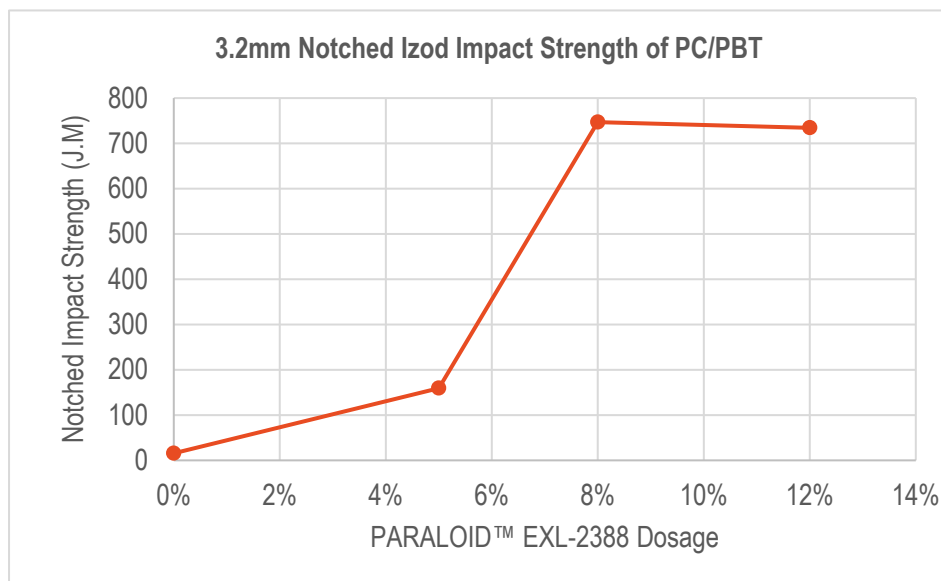
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### Product performance (continued)



### Toughness of PC/PBT Blends.

The toughness of PC/PBT can be upgraded by modification with PARALOID™ EXL-2388 Impact Modifier as shown on the below graph.



### Processing information

PARALOID™ EXL-2388 Impact Modifier is particularly easy to disperse into polycarbonate and in polycarbonate base blends when compounded on twin-screw extruders. It only slightly influences the rheology of the polymers. When molding modified polycarbonate and its blends, minor adjustments of the injection molding parameters may be necessary.

### Product Packaging

The standard package is either a unitized pallet of 20 kg bags.

Please consult a Dow representative for specific package availability for this product.



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### Quality management system

The Dow Chemical Company (Dow) and its subsidiaries have implemented a comprehensive quality management system pursuant to Good Manufacturing Practices (GMP) and various quality management standards including ISO 9001. An overview of **The Dow Quality Management System Manual** can be obtained at the following Internet web site – <http://www.dow.com/en-us/about-dow/our-company/beliefs-and-culture/quality-culture>. As part of that system, the Dow Plastics Additives business maintain ISO 9001 registration for most of our manufacturing plants. A copy of these certificates available upon request.

### Storage and handling precautions

Store unopened in original packaging at ambient temperature. If material is opened, it should not be left exposed and should be used within one month. When stored correctly in the original packaging, the shelf life is 3 years from date of manufacture.

Before using this product, consult the Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage. Contact Dow for copies of the SDS and for more information on this product. Information contained in a TDS document cannot substitute a SDS.

### Disposal considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

### Medical Applications Restrictions

Dow prohibits sale into certain medical applications. Please check with Dow if you believe your application could be in violation of this policy.

### Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. The customer is solely responsible for determining the suitability of the Dow product for the uses contemplated by customer. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow and available online at [www.dow.com](http://www.dow.com).

### Regulatory Information

If your application includes a sensitive application such as food contact or drinking water requirements or if you need other regulatory information, please contact your local Dow representative.

#### Contact information:

If you should have any questions regarding this notice, please contact your local Dow Representative or [www.dow.com/contact](http://www.dow.com/contact)

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