

U511R

Ultra High Molecular Weight Polyethylene

Description:

U511R is an Ultra High Molecular Weight Polyethylene with corrosion stabilizer (CS) in powder form with an average molecular weight about 5.5 Million g/mol. It has excellent process ability and better color stability including high wear resistance. It's suitable for products required high impact strength and diverse application (Compression Molding, Ram Extrusion, etc.).

Physical Properties:	Method	Unit	Value*
Density	ISO 1183	g/cm ³	0.93
Bulk density	ISO 60	g/cm ³	≥ 0.42
Viscosity Number (VN)	ISO 1628 – 3	ml/g	2710
Intrinsic viscosity [η]	ISO 1628 – 3	ml/g	2300
Average molecular weight (cal.)	Margolies's Equation	g/mol	5.5 x 10 ⁶
Average particle size, X50	Laser Scattering	μm	125
Mechanical Properties:	Method	Unit	Value*
Tensile strength at yield	ISO527	MPa	22
Tensile strength at break	ISO527	MPa	38
Ultimate elongation	ISO527	%	300
Izod impact strength	ASTM D256	J/m	NB
Hardness	ISO 868	Shore D	63
Thermal Properties:	Method	Unit	Value*
Melting temperature (10°C/min)	ASTM D3418	°C	130 – 138
Vicat softening point (1Kg)	ISO 306	°C	125 – 128

*Preliminary values are subjected to change in the interest of product development without notification.

Remark: The values presented on the above are typical laboratory average, not to be construed as specifications and may vary within moderate ranges. The applicability or the accuracy of this information or the suitability of our products can not be guaranteed because the conditions of use on the part or our uses are beyond our control. For the instructions of handling materials including potential hazards, we recommend to comply with specific Material Safety Data Sheet (MSDS), which can be provided by your technical contact person.

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Product Description

IRPC Ultra High Molecular Weight Polyethylene contains Polyethylene, chemicals and stabilizers in standard mass percentage.

Storage

IRPC High Molecular Weight Polyethylene shall be stored under dry condition with good ventilation system, protected from heat and direct sunlight. Store at temperature below 50 °C is strongly recommended.

Related Document

Related document of the following product are available upon request (i.e. Certificates, Material Safety Data Sheet, Technical Data Sheet)

Use Limitation / Recycling

The product is ready for use shall limit in specified application. Other modified application are not designed for IRPC High Molecular Weight Polyethylene is recyclable as a clean and homogeneous material. It is not recommended to mix recycling product with other materials. Recycle material may not have material properties equivalently to origin material. You may not copy, distribute, transmit, display, perform, reproduce, publish, license, create derivative works from, transfer, or sell, any information, from the IRPC website or its products, data or information.

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This product is warranted against any manufactured defect for a period of 90 days from date of purchase.

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