### FRESH THINKING GREAT PRODUCTS



## XILOY<sup>™</sup> SO2315

#### **Technical Datasheet**

Version number 05 2018

XILOY<sup>™</sup> SO2315 is an SMA-modified PMMA injection molding resin blend developed for engineering plastic applications. It offers:

- excellent optical properties
- higher thermal stability (112°C)
- good surface adhesion properties
- excellent processing

#### Application areas

XILOY<sup>™</sup> SO2315 is an injection moldable resin blend for demanding applications like:

- consumer disposables
- lighting
- displays
- housewares
- automotive lighting

#### Injection molding guidelines

XILOY<sup>™</sup> SO2315 can be processed on injection molding machines with 3-zone general purpose screws for engineering thermoplastics.

An important processing parameter for XILOY<sup>™</sup> SO2315 is melt temperature. Should this temperature become higher than 290°C, rotational speed, injection speed and back pressure have to be regulated so that the build-up of frictional heat in the melt is minimized during both plasticizing and injection. If production is delayed longer than 15 minutes, the barrel temperature should be reduced by 50°C while the machine is not in use. Upon restarting, the barrel should be emptied first.

#### Injection molds

In general all common tool steels are suitable. For optical parts it is advised to use high polished mold surfaces.

#### Storage and handling

XILOY<sup>™</sup> SO2315 can be added to the injection molding equipment through regular feeder systems.

#### Health and safety

All health related risks are mentioned in the Safety Data Sheet (SDS). Please contact: productstewardship@polyscope.eu to receive the SDS.

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#### Mechanical properties

	Unit	Typical value	Test method
Impact properties			
Charpy unnotched impact strength (23°C)	kJ/m <sup>2</sup>	18	ISO 179/1eU
Tensile properties			
Tensile stress at break	N/mm <sup>2</sup>	80	ISO 527-2
Elongation at break	%	3	ISO 527-2
E-modulus	N/mm <sup>2</sup>	3500	ISO 527-2

#### Thermal properties

	Unit	Typical value	Test method
Vicat softening temperature	°C	112	ISO 306 (B)

#### Specific properties

	Unit	Typical value	Test method
Melt flow index at 220°C and 100N	dg/min	7	ISO 1133
Luminous transmittance	%	92	ASTM D1003

#### Recommended processing conditions

	Unit	Typical value
Pre-drying temperature	°C	80
Pre-drying time in desiccant-type drier	hrs	2-3
Melt temperature	°C	240-260
Mold temperature	°C	80-100
Shear rates	s <sup>-1</sup>	200-800



Polyscope Prins de Lignestraat 28 6161 CZ Geleen The Netherlands

Contact

Phone + 31(0) 46 75 000 10 info@polyscope.eu www.polyscope.eu