

# TECHNICAL DATA SHEET

POLYPROPYLENE TIPPLEN K 499

Impact copolymer for injection moulding

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN+

The joint product portfolio of MOL Petrochemicals and Slovnaft provides infinite opportunities

## DESCRIPTION

TIPPLEN K 499 is an impact copolymer polypropylene for injection moulding. The product offers good flow, high impact strength and stiffness due to the ethylene content.

## APPLICATIONS

TIPPLEN K 499 is recommended for automotive components, dashboards, cooling water compensation reservoirs, door trim panels, luggage compartment trims and battery cases, crates, boxes.

## PRODUCT COMPLIANCE

See DDS.

## PROPERTIES

Parameter	Note	Test method	Unit	Typical value
Melt Mass-Flow Rate (MFR) (230 °C /2.16 kg)	-	ISO 1133-1	g/10 min	6.5
Tensile Strain at Yield	(1)	ISO 527-1,2	%	6
Tensile Stress at Yield	(1)	ISO 527-1,2	MPa	25
Modulus of Elasticity in Tension	(1)	ISO 527-1,2	MPa	1300
Flexural Modulus	(1)	ISO 178	MPa	1300
Izod Impact Strength (notched, 23 °C)	(1)	ISO 180/A	kJ/m <sup>2</sup>	16
Izod Impact Strength (notched, -20 °C)	(1)	ISO 180/A	kJ/m <sup>2</sup>	6
HDT (0.45 MPa, flatwise)	(1)	ISO 75-1,2	°C	107
Rockwell Hardness	(1)	ISO 2039-2	R scale	83

Typical properties, not to be used as specification.

(1) Average mechanical property values of several measurements carried out on standard injection-moulded test specimens prepared in accordance with ISO 294-1.

## PROCESSING

TIPPLEN K 499 can be used in conventional injection moulding machines. Recommended processing temperatures are 190-240 °C.

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## STORAGE AND HANDLING

Pellets are packed in 25 kg polyethylene bags and transported on shrink-wrapped or stretch-wrapped pallets at eligible load of polymer 1375 kg. We use adhesive between the bags in order to avoid their slipping. Pay attention to this fact during the removing of the bags from the pallets. The preferred method is to lift the bag at first without rotation. Heat treated pallets are provided by PRS, a member of the Faber Halbertma Group, operating a pooling system which collects the pallets after use, and organizes reuse as part of a sustainable, circular system. PRS pallets remain property of PRS at all times. Transportation in road silo or rail silo is also available. For more detailed information please contact a sales representative at SLOVNAFT or at MOL Petrochemicals.

Since polypropylene is a combustible substance, the fire safety rules applicable for combustible materials in warehouses and store rooms should be observed.

If polymer is stored in conditions of high humidity and fluctuating temperatures, then atmospheric moisture can condense inside the packing. If it happened, it is recommended the pellets to be dried before use. During the storage polypropylene should not be exposed to UV radiation and temperatures above 40°C. Producer does not take responsibility for any damages caused by adverse storage.

## REACH STATEMENT

Polymers are exempt of REACH registration. However, their raw materials which mean monomers and relevant additives have been registered. MOL Petrochemicals is committed to fully respect legislation and will only use REACH compliant raw materials. At this point in time PP TIPPLEN does not contain any substances specifically identified as SVHC at levels greater than 0.1%.

## RECYCLING

Polypropylene resins are suitable for recycling using modern recycling methods. In-house production waste should be kept clean to facilitate direct recycling.

## SAFETY

See MSDS.

Flammability measurement according to FMVSS302 (1998): burning rate approx. 36 mm, measured on a 2 mm thick sample.

## DISCLAIMER

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