

## Product Information

### Product description

INNOPOL® CS 1-3820 MA is a 22 % glass fibre filled polypropylene homopolymer compound. This grade is available in natural and custom coloured form.

### Recommended application

INNOPOL® CS 1-3820 MA is recommended for producing injection molded products, where the required properties are high strength and stiffness besides long term heat stability and excellent processability.

Physical properties/Typical values	Test method	Unit	Mean value
<b>Properties</b>			
Abbreviated term	ISO 1043	-	PPH GF22
Colour	-	-	nature
Density 23°C	ISO 1183	g/cm <sup>3</sup>	1,06
Shrinkage - parallel	ISO 294	%	0,61
Shrinkage - normal	ISO 294	%	1,17
<b>Rheology</b>			
Melt Mass Flow Rate MFR (230°C/2,16kg)	ISO 1133	g/10 min	12
<b>Mechanical properties</b>			
Tensile Modulus (1 mm/min)	ISO 527-1,-2	MPa	5400
Tensile Stress at Yield (50 mm/min)	ISO 527-1,-2	MPa	83
Tensile Strain at Yield (50 mm/min)	ISO 527-1,-2	%	2,8
Nominal Tensile Strain at Break	ISO 527-1,-2	%	4,2
Impact Strength Charpy 23°C	ISO 179/1eU	kJ/m <sup>2</sup>	41
Impact Strength Charpy -20°C	ISO 179/1eU	kJ/m <sup>2</sup>	21
Notched Impact Strength Charpy 23°C	ISO 179/1eA	kJ/m <sup>2</sup>	7
Notched Impact Strength Charpy -20°C	ISO 179/1eA	kJ/m <sup>2</sup>	6,3
Flexural Strength (1A/2)	ISO 178	MPa	119
Flexural Modulus (2 mm/min)	ISO 178	MPa	5100
<b>Thermal properties</b>			
Heat Deflection Temperature 1,8 MPa (HDT/A)	ISO 75-1,-2	°C	145
Heat Deflection Temperature 0,45 MPa (HDT/B)	ISO 75-1,-2	°C	157

Data contain above represent typical values of individual properties. They are informative, please do not construe as specifications.

MFR is measured at 230°C under a load of 2.16 kg with standard nozzle having a diameter of 2.095 mm.

Average mechanical property values of several measurements carried out on standard injection moulded specimens (ISO 3167) conditioned at room temperature (ISO 291).

## Product Information

### Physical form and storage

Standard packaging includes the 25 kg bags, the 1000 kg octabin (octagonal container) or the 1250 kg big-bag. All containers are tightly sealed and should be opened only immediately prior to processing.

INNOPOL<sup>®</sup> CS 1-3820 MA should generally have a moisture content of less than 0.07 % when being processed. In order to ensure reliable production pre-drying is suggested before processing of material at 80°C/2h.

INNOPOL<sup>®</sup> CS 1-3820 MA should be stored in dry conditions at temperatures below 60 °C and protected from UV-light. The quality of product may suffer due to storage under improper condition.

### Recommended processing parameters

INNOPOL<sup>®</sup> CS 1-3820 MA is easy to be processed with standard injection moulding machines.

The following parameters should be used as guidelines:

Barrel temperatures	190 – 230°C
Polymer melt temperature	210 – 250°C
Mould temperature	10 – 50°C
Injection speed	intermediate, depend on the mould design
Hold pressure	50 – 100 % of injection pressure

### Product safety

For detailed safety information, see Safety Data Sheet, which is available on request.

### Note

All information provided herein is based on our best knowledge, experience and laboratory test results. However, Inno-Comp Kft. shall be in no even responsible or liable for misunderstood data or for inefficient application.

In order to check the availability of products, please, contact us:

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