



# Polypropylene

# CSC4412

Polypropylene Copolymer

## Description

**CSC4412** is a polypropylene copolymer intended for injection moulding.

This material has excellent balanced mechanical properties and is easy to process.

## Applications

**CSC4412** has been developed especially for the automotive industry.

Under body shieldings

## Physical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Density	910 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	2,5 g/10min	
Flexural Modulus (2 mm/min)	1.350 MPa	ISO 178
Flexural Strength	34 MPa	ISO 178
Tensile Modulus (1 mm/min)	1.370 MPa	ISO 527-2
Tensile Strain at Yield (50 mm/min)	7 %	ISO 527-2
Tensile Stress at Yield (50 mm/min)	26 MPa	ISO 527-2
Heat Deflection Temperature A (1,80 MPa)	51 °C	ISO 75-2
Heat Deflection Temperature B (0,45 MPa)	90 °C	ISO 75-2
Vicat softening temperature (50 N)	70 °C	ISO 306
Charpy Impact Strength, notched (23 °C)	54 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Impact Strength, notched (-30 °C)	5,5 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	No break	ISO 179/1eU
Charpy Impact Strength, unnotched (-30 °C)	129 kJ/m <sup>2</sup>	ISO 179/1eU

Values determined on standard injection moulded specimens conditioned at 23°C and 50% relative humidity after at least 96 hours storage time.

## Processing Techniques

The actual conditions will depend on the type of equipment used.

### Injection Moulding

This product is easy to process with standard injection moulding machines. Following parameters should be used as guidelines:

Feeding temperature	40 - 80 °C
Mass temperature	220 - 260 °C
Back pressure	Low to medium
Holding pressure	30 - 60 MPa
Mould temperature	30 - 50 °C
Screw speed	Low to medium
Flow front speed	100 - 200 mm/s

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## Storage

CSC4412 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

## Safety

The product is not classified as a dangerous preparation.

Please see our Safety Data Sheet for details on various aspects of safety of the product, for more information contact your Borealis representative.

## Recycling

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

Please see our Safety Data Sheet for details on various aspects of recovery and disposal of the product.

## Disclaimer

**The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.**

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.

**Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.**

**It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.**

No liability can be accepted in respect of the use of Borealis' products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

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