

# PRODUCT DATA SHEET

# POLYPROPYLENE

# MD441AIC

40% MINERAL FILLED POLYPROPYLENE FOR INJECTION MOLDING

## DESCRIPTION

**MD441AIC** is a 40% mineral filled polypropylene compound for injection molding. It shows good mechanical properties with high stiffness for interior application. This material is only available in black.

## APPLICATIONS

**MD441AIC** is designed for automotive interior parts

Glove Box

Interior Trims

## SPECIAL FEATURES

Suitable for Low VOC requirements

## PHYSICAL PROPERTIES

Property	Typical Value	Test Method
Density	1220 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (230°C/2.16kg)	6 g/10min	ISO 1133
Flexural Modulus (2mm/min)	4700 MPa	ISO 178
Tensile Stress at Yield (50mm/min)	32 MPa	ISO 527-2
Charpy Impact Strength, notched (23°C)	2.4 kJ/m <sup>2</sup>	ISO 179/1eA

\*Data should not be used for specification work

## LOW VOC PROCESSING CONDITIONS

To avoid residual humidity from transport or storage, the material should be pre-dried approximately 2h at 80°C.

Following parameters should be used as guidelines:

Holding pressure	50% - 70% of the injection pressure
Injection speed	Low to medium
Mould temperature	30 - 50°C
Injection mass temperature	220 - 260°C
Screw speed	Slow to medium

- Injection machine barrel must be cleaned carefully during startup to remove possible degraded remains and impurities.
- Shot size is suggested to be kept at 30-70% of machine shot capacity to avoid long material residence time.

- Lower shear rate of plastic material is recommended to achieve lower VOC and odour. Injection speed is recommended to be kept at lower level if part filling is not an issue. Bigger gate size is recommended and try not to use small pin point gate and banana gate.
- Upon successful filling without appearance defect, low barrel temperature is preferred to achieve lower VOC.
- Avoid using mould release or lubricant agent during moulding process, which will possibly generate undesirable volatiles and odour.

Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. Please contact your local Borouge representative for such particulars.

## STORAGE

**MD441AIC** 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.

More information on storage can be found in Safety Information Sheet (SIS) for this product.

## SAFETY

The product is not classified as a hazardous preparation.

Please see our Safety Information Sheet (SIS) for details on various aspects of safety, recovery and disposal of the product, for more information contact your Borouge 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.

## RELATED DOCUMENTS

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

Safety Information Sheet  
Statement on chemicals, regulations and standards

## STANDARDS

Borouge is certified to various ISO standards, please refer to [Borouge.com](http://Borouge.com) for more information.

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## 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.

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