

# MAGNUM™ 3453 ABS Resin

## Overview

MAGNUM\* 3453 ABS is a general purpose injection moulding resin suitable for a wide range of applications. The product combines a medium to high impact performance with good flowability.

The mass (continuous process) ABS technology of Styron ensures an ABS resin that combines excellent processability with a stable light base colour that is ideal for self-colouring.

### Applications:

- Household appliances
- Telephones
- Electrical and computer equipment
- Consumer goods
- Toys
- Automotive interior parts

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm <sup>3</sup>	1.05 g/cm <sup>3</sup>	ISO 1183/B
Apparent Density	0.65 g/cm <sup>3</sup>	0.65 g/cm <sup>3</sup>	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	15 g/10 min	15 g/10 min	ISO 1133
Molding Shrinkage - Flow	0.0040 to 0.0070 in/in	0.40 to 0.70 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ISO 527-2
0.126 in (3.20 mm), Injection Molded	331000 psi	2280 MPa	
Tensile Stress			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	6530 psi	45.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	2.5 %	2.5 %	
Flexural Modulus			ISO 178 <sup>1, 2</sup>
0.126 in (3.20 mm), Injection Molded	334000 psi	2300 MPa	
Flexural Strength			ISO 178 <sup>1, 2</sup>
0.126 in (3.20 mm), Injection Molded	9860 psi	68.0 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Fogging	97 %	97 %	ISO 294-4 <sup>3</sup>
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C), Injection Molded	4.8 ft·lb/in <sup>2</sup>	10 kJ/m <sup>2</sup>	
73°F (23°C), Injection Molded	9.5 ft·lb/in <sup>2</sup>	20 kJ/m <sup>2</sup>	
Notched Izod Impact Strength			ISO 180/A
-22°F (-30°C), Injection Molded	4.3 ft·lb/in <sup>2</sup>	9.0 kJ/m <sup>2</sup>	
73°F (23°C), Injection Molded	9.0 ft·lb/in <sup>2</sup>	19 kJ/m <sup>2</sup>	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	212 °F	100 °C	
Vicat Softening Temperature	207 °F	97.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate (0.0787 in (2.00 mm))	2.2 in/min	55 mm/min	ISO 3795 <sup>3</sup>
Flame Rating			UL 94 <sup>3</sup>
0.0591 in (1.50 mm)	HB	HB	
0.118 in (3.00 mm)	HB	HB	
Carbon Emission	25.0 µg/g	25.0 µg/g	VDA 277 <sup>3</sup>

**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

---

<sup>1</sup> 0.079 in/min (2.0 mm/min)

---

<sup>2</sup> 3-points

---

<sup>3</sup> This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

## Product Stewardship

Styron LLC, Styron HoldCo B.V., and subsidiaries ("Styron") have a fundamental concern for all who make, distribute, and use its products and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health and environmental information on our products to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Styron products – from the initial concept and research, to manufacture, use, sales, disposal and recycle of each product

## Customer Notice

Customers are responsible for reviewing their manufacturing processes and their applications of Styron products from the standpoint of human health and environmental quality to ensure that Styron products are not used in ways for which they are not suitable. Styron personnel are available to answer questions and to provide reasonable technical support. Styron product literature, including safety data sheets, should be consulted prior to the use of Styron products. Current safety data sheets are available from Styron.

## Notice Regarding Medical Application Restrictions

Styron requests that customers considering the use of Styron products in medical applications notify Styron so that appropriate assessments may be conducted.

Styron does not endorse or claim suitability of its products for specific medical applications and does not knowingly sell or sample its products or services for certain medical applications. It remains the responsibility of the medical device or pharmaceutical manufacturer to determine that the Styron product is safe, lawful, and technically suitable for the intended use.

## Disclaimer

No freedom from infringement of any patent owned by Styron or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for the Customer's use and for ensuring that the Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. **STYRON ASSUMES NO OBLIGATION OR LIABILITY FOR THE INFORMATION IN THIS DOCUMENT. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

If products are described as "experimental" or "developmental": 1.) product specifications may not be fully determined; 2.) analysis of hazards and caution in handling and use are required; 3.) there is greater potential for Styron to change specifications and/or discontinue production; and 4.) although Styron may from time to time provide samples of such products, Styron is not obligated to supply or otherwise commercialize such products for any use of application whatsoever.

## Responsible Care®

Our top priority is to provide the highest quality products and services, and to focus on the American Chemistry Council's Responsible Care® initiative and safety in all of our facilities.

## Additional Information

<b>North America</b>		<b>Europe/Middle East</b>	
U.S. & Canada:	1-888-STYRON1 1-989-633-1718	Germany:	+800 444 11 444 +31-11567-2626 +8001811361
Mexico:	+1-800-441-4369		
<b>Latin America</b>		<b>Asia Pacific</b>	
Argentina:	+54-11-4319-0100		+800-7776-7776 +603-7965-5319
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000		
Mexico:	+52-55-5201-4700		

[www.styron.com](http://www.styron.com)

This document is intended for use within Asia Pacific, Europe

Published: August 2012

© 2012 Styron LLC, Styron HoldCo B.V., and subsidiaries

