

# SABIC<sup>®</sup> HDPE CC253

## HIGH DENSITY POLYETHYLENE

### DESCRIPTION

SABIC<sup>®</sup> HDPE CC253 offers a good combination of stiffness, impact resistance, ESCR and organoleptic properties. The typical applications of this grade are mainly injection molding and compression molding of caps for sparkling water and carbonated soft drinks.

SABIC<sup>®</sup> HDPE CC253 does not contain slip agent.

This product is not intended for and must not be used in any pharmaceutical /medical applications.

### TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate</b>			
at 190 °C and 2.16 kg	1.8	dg/min	ISO 1133
<b>Density</b>	952	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile test</b> <sup>(1) (2)</sup>			
stress at yield	26	MPa	ISO 527-2
stress at break	30	MPa	ISO 527-2
strain at break	200	%	ISO 527-2
tensile modulus	1100	MPa	ISO 527-2
<b>Flexural test</b>			
Flexural modulus	1150	MPa	ISO 178
Flexural strength	26	MPa	ISO 178
<b>Izod impact notched</b>			
at 23 °C	7	kJ/m <sup>2</sup>	ISO 180/A
<b>ESCR on Caps</b> <sup>(3)</sup>	100	h	SABIC method
<b>THERMAL PROPERTIES</b>			
<b>Heat deflection temperature</b>			
at 0.45 MPa (HDT/B)	80	°C	ISO 75-2
<b>Vicat Softening Temperature</b> <sup>(4) (5)</sup>			
at 10 N (VST/A)	124	°C	ISO 306
<b>DSC test</b>			
melting point	131	°C	ISO 11357-3
enthalpy change	201	J/g	ISO 11357-3
<b>C&amp;C PROPERTIES</b>			
<b>Organoleptic properties</b>	approved	-	SABIC method

(1) Test specimen according to ISO 527-2 type 1BA, thickness 2 mm

(2) Speed of testing: 50 mm/min

(3) Determined in 10% Igepal CO-630 at 40 °C, 6 bar internal water pressure, thickness 1 mm

(4) Compression moulding of test specimen according to ISO 1872-2

(5) Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours

## QUALITY

SABIC is fully certified in accordance with the internationally accepted quality standard ISO 9001.

## ENVIRONMENT AND RECYCLING

The environmental aspects of any packaging material do not only imply waste issues but have to be considered in relation with the use of natural resources, the preservations of foodstuffs, etc. SABIC considers polyethylene to be an environmentally efficient packaging material. Its low specific energy consumption and insignificant emissions to air and water designate polyethylene as the ecological alternative in comparison with the traditional packaging materials. Recycling of packaging materials is supported by SABIC whenever ecological and social benefits are achieved and where a social infrastructure for selective collecting and sorting of packaging is fostered. Whenever 'thermal' recycling of packaging (i.e. incineration with energy recovery) is carried out, polyethylene -with its fairly simple molecular structure and low amount of additives- is considered to be a trouble-free fuel.

## STORAGE AND HANDLING

Polyethylenes resins (in pelletised or powder form) should be stored in such a way that it prevents exposure to direct sunlight and/or heat, as this may lead to quality deterioration. The storage location should also be dry, dust free and the ambient temperature should not exceed 50 °C. Not complying with these precautionary measures can lead to a degradation of the product which can result in colour changes, bad smell and inadequate product performance. It is also advisable to process polyethylene resins (in pelletised or powder form) within 6 months after delivery, this because also excessive aging of polyethylene can lead to a deterioration in quality.

## HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

Detailed information is provided in the relevant Material Safety Datasheet and or Standard Food Declaration, available on the Internet ([www.SABIC.com](http://www.SABIC.com)). Additional specific information can be requested via your local Sales Office.