



# SABIC® PP 642NH-66408

POLYPROPYLENE RANDOM CO-POLYMER FOR PIPE

## DESCRIPTION

SABIC® PP 642NH-66408 is a high molecular weight, low melt flow rate polypropylene random copolymer (PP-R) green coloured and specially designed for transport of hot and cold drinking water. This grade is highly heat stabilized and specially formulated for extraction resistance with improved throughput & gloss. SABIC® PP 642NH-66408 is pre-color compounded version of SABIC® PP 651H PPR resin (Exova – MRS classification 8 MPa). SABIC® PP 642NH-66408 is a designated pipe grade.

## TYPICAL APPLICATIONS

SABIC® PP 642NH-66408 is a designated pipe grade.

## TYPICAL PROPERTY VALUES

Revision 20230511

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Flexural Modulus <sup>(1)</sup>	1040	MPa	ISO 178
<b>POLYMER PROPERTIES</b>			
Melt Flow Rate (MFR)			
at 230 °C and 2.16 kg	0.3	g/10 min	ISO 1133
Density	900	kg/m <sup>3</sup>	ASTM D1505
Filler content <sup>(2)</sup>	0.5	%	SABIC method
Mould shrinkage			
24 hours after injection moulding <sup>(2)</sup>	2.0	%	SABIC method
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile test</b>			
Tensile modulus	1000	MPa	ISO 527/1A
tensile strength	28	MPa	ISO 527/1A
stress at break	18	MPa	ISO 527/1A
strain at break	70	MPa	ISO 527/1A
<b>Izod impact notched</b>			
at 23 °C <sup>(1)</sup>	26	kJ/m <sup>2</sup>	ISO 180/1A
at 0 °C	3.5	kJ/m <sup>2</sup>	ISO 180/1A
at -20 °C	2.5	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
<b>Heat deflection temperature</b>			
HDT A (at 1.8 MPa)	49	°C	ISO 75
HDT B (at 0.45 MPa)	84	°C	ISO 75
<b>Coeff. of linear thermal expansion</b>			
CLTE -30 °C to 80 °C	126	µm/mK	ASTM D696

(1) Injection molded sample ISO527-1A.

(2) Injection molded plaque 65x65x3.2 mm



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