

# SABIC® VESTOLEN A RELY 5924R 10000 BLACK

## HIGH DENSITY POLYETHYLENE

### DESCRIPTION

SABIC® Vestolen A RELY 5924R 10000 is a grade which has a high density and a bimodal distribution of the molecular mass. Due to the low sag characteristics of this material it may be used for the production of thick walled (large diameter and low SDR) pipes for infrastructure and industrial applications and shows favorable processing behaviour. This material meets (inter)national standards for use in gas, drinking water and waste water piping. MRS class ISO 12162 MPa = 10.0 (PE 100).

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>			
Colour	Black	-	-
RAL number	9004	-	-
<b>Melt Flow Rate</b>			
at 190 °C and 5 kg	0.23	dg/min	ISO 1133
Carbon black content	2.25	%	ISO 6964
Density	959	kg/m³	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile test <sup>(1) (2)</sup></b>			
stress at yield	24	MPa	ISO 527-2
strain at yield	8	%	ISO 527-2
tensile modulus	1000	MPa	ISO 527-2
<b>Charpy Impact Strength Notched</b>			
at 23 °C	21	kJ/m²	ISO 179/1eA
at -30 °C	9	kJ/m²	ISO 179/1eA
Hardness Shore D	63	-	ISO 868
MRS classification	10	MPa	ISO 12162
OIT 210 °C	>20	min	ISO 11357-6
<b>THERMAL PROPERTIES</b>			
<b>Heat deflection temperature</b>			
at 1.80 MPa (HDT/A)	44	°C	ISO 75-2
at 0.45 MPa (HDT/B)	72	°C	ISO 75-2
<b>Vicat Softening Temperature <sup>(3)</sup></b>			
at 50 N (VST/B)	74	°C	ISO 306
<b>DSC test</b>			
melting point	124 – 128	°C	DIN 53765

(1) Speed of testing: 50 mm/min

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

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