+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

SABIC® VESTOLEN A RELY 5922R 10000 BLACK

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® Vestolen A RELY 5922R 10000 is a grade which has a high density and a bimodal distribution of the molecular mass.
Due to its resistance against slow crack growth (SCG) the material SABIC® Vestolen A RELY 5922R 10000 is considered as PE100-RC and may be used for no dig applications.
Moreover it may be used for the production of thick walled (large diameter and low SDR) pipes for infrastructure and industrial application due to its low sagging characteristics and it shows favorable processing behavior.
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
POLYMER PROPERTIES			
Colour	Black	-	-
RAL number	9004	-	-
Melt Flow Rate			
at 190 °C and 5 kg	0.2	dg/min	ISO 1133
Carbon black content	2.25	%	ISO 6964
Density	959	kg/m³	ASTM D1505
MECHANICAL PROPERTIES			
Tensile test [1] [2]			
stress at yield	24	MPa	ISO 527-2
strain at yield	9	%	ISO 527-2
tensile modulus	1100	MPa	ISO 527-2
Charpy Impact Strength Notched			
at 23 °C	26	kJ/m²	ISO 179/1eA
at -30 °C	10	kJ/m²	ISO 179/1eA
Hardness Shore D	62	-	ISO 868
ESCR FNCT [3]	>8760	h	ISO 16770
ESCR (Strain Hardening), Gp [4]	>50	MPa	SABIC method
MRS classification	10	MPa	ISO 12162
Notch Pipe Test	>8760	h	EN ISO 13479
OIT 210 °C	>20	min	ISO 11357-6
THERMAL PROPERTIES			
Heat deflection temperature			
at 1.80 MPa (HDT/A)	45	°C	ISO 75-2
at 0.45 MPa (HDT/B)	72	°C	ISO 75-2
Vicat Softening Temperature [5]			
at 50 N (VST/B)	72	°C	ISO 306
DSC test			
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) Determined in 2% Arkopal N100 at 80 °C, 4 MPa
(4) Publication in Science Direct, Polymer no. 46 (2005) 6369-6379
(5) Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours

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). Additional specific information can be requested via your local Sales Office.

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.