

CHEMISTRY THAT MATTERS™

سابك
sabic

RELIABILITY+ INNOVATION

PIPE SYSTEM SOLUTIONS



MAKING A WORLD OF
DIFFERENCE TOGETHER



In cooperation with others,
we're developing strategies
and partnerships that
make a difference and
shape tomorrow by
contributing to deliver
the solutions the world
needs. This is what we call
Chemistry that Matters™



INTRODUCTION

Global urbanization and population growth will increase the demand for plastic pipes. Pipe network owners and converters are looking for material solutions that are more sustainable and increase the performance and durability of pipes used in the infrastructure, industrial, domestic and agriculture markets.

SABIC produces the highest standard of raw materials for pipes above or below the ground that are reliable, durable, high-quality and competitive.

SABIC polymers can contribute to more sustainable industry solutions, e.g. by extending the durability of infrastructure pipes, supporting efficient installation and water use through high crack resistance pipes, enabling the transport of green energy through temperature-resistance cable ducts and protecting clean drinking water.



INFRASTRUCTURE

SABIC materials enable access to safe drinking water and proper sanitation, reducing the risk of contamination and illness. District heating and cooling systems offer an environmentally-friendly way to create an adequate indoor climate. Gas pipes made of SABIC polymers are able to meet the stringent safety requirements of gas companies. SABIC solutions for telecommunication systems are contributing to the way people learn and communicate daily. Overall, SABICs' pipe portfolio is positively linked with the daily life of millions of people worldwide.

Power cables installed underground are indispensable when it comes to driving the change from non-renewable to renewable and clean energy supply.

SABIC also offers solutions for Reinforced Thermoplastic Pipes (RTP) which are used in oil flow, gas distribution and water injection lines.

KEY APPLICATIONS

- Gas
- Potable and storm water
- Sewage and drainage
- Cable – and micro ducts
- District heating
- Fittings
- Manholes and inspection chambers
- Power cable ducting
- Storm box





INDUSTRIAL

In many industries, there is a need to transport dangerous fluids and waste safely and economically. SABIC offers grades that are typically used for pipes, slurries and in industrial applications that must be able to withstand high pressure and handle industrial fluids and substances. SABIC also offers solutions for Reinforced Thermoplastic Pipes (RTP), which are used in oil flow, gas distribution and water injection lines.

APPLICATIONS

- Chemical
- Cooling
- Dredging and mining
- Hydropower
- Oil and gas
- Slurry
- Ventilation



DOMESTIC

Pipes bring our most valuable commodity into our homes – water. The quality of fresh water supply is important for nearly every aspect of SABIC lives. As society and environment become more complex, the need for more innovative domestic pipe systems is also increasing. Whether

you are providing a reliable and safe supply of clean water, waste water management, heating and cooling, or sanitary systems, SABIC delivers high-temperature and chemical-resistance solutions with excellent durability and long-term performance.

APPLICATIONS

- Floor heating, cooling and radiator connections
- Hot, cold and waste water
- Chimney and ventilation
- Conduit and protection



AGRI- AND AQUACULTURE

A continuously growing global population requires the food and agriculture industry to become more efficient and sustainable in their use of natural resources. Additionally, the climate change may push farmers to find solutions for more extreme drought and rainfall without sacrificing their crops. SABIC® materials enable the manufacturing of long-lasting and dependable pipes and tapes used for pressure and drip irrigation and fish cages.

APPLICATIONS

- Cages for fish farming
- Drainage
- Pressure and drip irrigation



SABIC GLOBAL PIPE PORTFOLIO

At SABIC we work closely with SABIC customers to continuously improve the performance of SABIC products to ensure that we meet the demands and expectations of customers. SABIC technical experts are available to offer you advice on your specific applications.

For more information please contact SABIC sales office in your region or visit our website to learn more about SABIC's portfolio: www.sabic.com

GLOBAL PIPE SEGMENT PORTFOLIO

MULTIMODAL HDPE

	Grades	Colour	Flow Rate (g/10 min) MI2=190 /2,16 MI5=190/5 MI21=190/21, 6 ISO 1133	Density kg/m3 ISO 1183	Typical Applications	Characteristics
HDPE	5061	Natural	0.4 (MI5)	950	Cable- and micro ducts, sheets, semifinished products	Bimodal and good flow, good stress crack resistance (ESCR)
	6060	Natural	0.3 (MI5)	950	Cable- and micro ducts, sheets, semifinished products, pressureless pipes, liner pipes	Bimodal and good flowability, good stress crack resistance (ESCR)
	F01552	Natural	0.15 (MI2.16)	952	Irrigation pipes and tapes	Good processability
	P952	Natural	0.33 (MI5) 9 (MI21)	952	Non-Pressure pipe application, irrigation, cable ducts, corrugated & gravity pipes, sheets	Good processability
	P6006N	Natural	0.23 (MI5) 6.2 (MI21)	949	Potable & storm water, gas supply, sewage, corrugated and spiral systems, liner pipes, sheets	PE 4710, multi-modal, pressure pipes and good stress crack resistance (ESCR)
	P6006NA	Natural	0.23 (MI5) 6.2 (MI21)	949	Potable & storm water, gas supply, sewage, corrugated and spiral systems, liner pipes	PE 4710, multi-modal, pressure pipes and good stress crack resistance (ESCR)
	P4808N	Natural	0.23 (MI5) 6.5 (MI21) as per TDS	949	Non-Pressure pipe application, irrigation, cable ducts, corrugated & gravity pipes, sheets	Multi-modal and good stress crack resistance (ESCR)
	P4808NA	Natural	0.23 (MI5) 6.5 (MI21)	949	Non-Pressure pipe application, irrigation, cable ducts, corrugated & gravity pipes, sheets	Multi-modal and good stress crack resistance (ESCR)
	P5305N	Natural	4.5 (MI21)	953	Non-Pressure pipe application, irrigation, cable ducts, corrugated & gravity pipes, sheets	Multi-modal and good stress crack resistance (ESCR)
	P5307N	Natural	8 (MI21) as per TDS	953	Non-Pressure pipe application, irrigation, cable ducts, corrugated & gravity pipes, sheets	Multi-modal and good stress crack resistance (ESCR)
	P5616N	Natural	16 (MI21)	956	Non-Pressure pipe application, irrigation, cable ducts, corrugated & gravity pipes, sheets	Multi-modal and good stress crack resistance (ESCR)
	P4909NA	Natural	0.34 (MI5), 9 (MI21)		Non-Pressure pipe application, irrigation, cable ducts, corrugated & gravity pipes, sheet.	multimodal, good stress crack resistance (ESCR)
	HDPE PE100	Vestolen A 6060R	Black	0.3 (MI5)	959	Potable water, gas supply, sewage, cable ducts, casing pipe, steel rope sheathing, spiral pipes
Vestolen A 6060R		Blue	0.34 (MI5)	950	Potable water	PE 100, bimodal, pressure pipes and good stress crack resistance
Vestolen A RELY 5922R		Black	0.2 (MI5)	959	Potable water, gas supply, sewage, spiral pipes, geothermal probes	PE 100RC, bimodal, pressure pipes, resistance to crack, trenchless installation, low sagging
Vestolen A RELY 5923R		Black	0.2 (MI5)	959	Potable water, gas supply, sewage, spiral pipes	PE 100, bimodal, pressure pipes, low sagging
Vestolen A RELY 5924R		Black	0.22 (MI5)	959	Potable, gas supply, sewage, spiral pipes	PE 100, bimodal, pressure pipes, low sagging
Vestolen A RELY 5944HT		Black	0.2 (MI5)	959	High voltage cable protection, Industrial pipe, Geothermal pipes, district heating pipes	MRS10 classification, bimodal, pressure pipes, high temperature resistance, low sagging, resistance to crack
Vestolen A 5933RD		Black	0.2 (MI5)	959	Potable water, resistant to disinfectants	PE 100, bimodal, pressure pipes, high disinfectant resistant, resistance to crack, low sagging
P6006		Black	0.23 (MI5) 6.2 (MI21)	959	Potable water, gas supply, sewage, corrugated and spiral pipes	PE 100, multi-modal, pressure pipes and good stress crack resistance
P6006AO		Orange	0.23 (MI5)	950	Gas pressure pipes	Class MRS 11, multi-modal especially designed for pressure pipes applications, good stress crack resistance (ESCR)
P6006AD		Black	0.23 (MI5) 6.2 (MI21)	959	Potable water, gas supply, sewage and other fluids	Class MRS 11 and classified as well as PE4710 multi-modal especially designed for pressure pipes applications, good stress crack resistance (ESCR)
P6006LS	Black	0.23 (MI5) 8 (MI21)	960	Potable water, gas supply, sewage and other fluids, useful for large diameter pipes and pressure pipes with low SDR	Class MRS 11,2 Mpa; multimodal, low sagging	

HDPE80	Vestolen A 5061R	Black	0.36 (MI5)	958	Potable water, gas supply, sewage, cable ducts, casing pipe, steel rope sheathing	PE 80, bimodal, pressure pipes and good stress crack resistance
HDPE	P4200RT	Natural	0.45 (MI5) 9.5 (MI21)	947	Domestic hot and cold water, Radiator connections, Metal pipe inner liners, secondary heating, oil and gas	Good stress crack resistance combined with very good long term hydrostatic strength, high heat and high extraction stability

LLDPE

	Grades	Colour	Flow Rate (g/10 min) MI2= 190 /2,16	Density kg/m3 ISO 1183	Typical Applications	Characteristics
LLDPE	128CNJ	Natural	1	0.928	Telecommunication cables, electrical conduits and drip & irrigation pipes.	Combining stiffness, toughness, high melt strength with an excellent processability due to its broad molecular weight distribution
	P438J	Natural	0.4	0.938	Cylindrical and tape drip irrigation pipes	Excellent process ability with a high level of consistency; Exceptional mechanical properties and stress crack resistance

POLYPROPYLENE

	Grades	Colour	Flow Rate (g/10 min) 230 / 2 ISO 1133	Typical Applications	Characteristics
PP-Random Copolymer	Vestolen P9421 00901	Natural	0.3	Domestic hot and cold water, underfloor heating and cooling pipes	Natural, PP-R, high temperature resistance, long track records
	Vestolen P9421 66408	Green	0.3	Domestic hot and cold water, underfloor heating and cooling pipes	Green, PP-R, high temperature resistance, long track records
	Vestolen P9421 66409	Green	0.3	Domestic hot and cold water, underfloor heating and cooling pipes	Green, PP-R, high temperature resistance, long track records
	Vestolen P9421 66410	Green	0.3	Domestic hot and cold water, underfloor heating and cooling pipes	Green, PP-R, high temperature resistance, long track records
	Vestolen P9421 67727	Grey	0.3	Domestic hot and cold water, underfloor heating and cooling pipes, industrial pipes	Grey, PP-R, high temperature resistance, long track records
	XR19030E	Natural	0.3	industrial sheets, industrial pipes, domestic sewage pipes	good balance between stiffness and impact resistance, elevated heat stability, good processability. No stress whitening.
	XR20036E	Natural	0.3	industrial sheets, industrial pipes, domestic sewage pipes	good impact resistance, elevated heat stability, good processability

POLYPROPYLENE

	Grades	Colour	Flow Rate (g/10 min) 230 / 2 ISO 1133	Typical Applications	Characteristics
PP-Homo Polymer	PP531Ph	Natural	0.3	Domestic sewage pipes, industrial sheets	High stiffness, elevated temperature resistance, good flowability
	PP535P	Natural	0.6	Domestic sewage pipes and fittings, industrial sheets	High stiffness, elevated temperature resistance, good flowability

POLYPROPYLENE

	Grades	Colour	Flow Rate (g/10 min) 230 / 2 ISO 1133	Typical Applications	Characteristics
PP-Impact Copolymer	RELY 61EK61PS	Natural	0.3	Sewage & drainage pipes, manholes, corrugated pipes	Good balance between high cold impact resistance and high stiffness,
	RELY 71EK71PS	Natural	0.3	Sewage & drainage pipes, manholes, corrugated pipes	Good balance between high cold impact resistance and mediumstiffness
	RELY 66MK66	Natural	6	Infiltration Boxes	High stiffness and creep resistance, good flow properties
	83EK10	Natural	1.2	Fittings & Manholes, corrugated pipes	Good impact strength and low flow properties
	83MF10	Natural	1.8	Fittings & Manholes	Good impact strength and moderate flow properties
	50EK75 S	Natural	0.3	Sewage & drainage pipes, manholes	Good balance between stiffness and cold impact
	80EK20 S	Natural	0.8	Fittings & Manholes	Good flowability and balance between impact and stiffness

PVC (Polyvinyl Chloride)

	Grades	K-Value	Typical Applications	Characteristics
PVC	67S	67	Pressure and non-pressure pipe profiles Corrugated tubes and conduits	Very low dust-level, high purity, high bulk density, narrow particle size distribution
	57S	57	Domestic sewage pipes and fittings, industrial sheets	Low content of fines, high tensile properties, narrow particle size distribution

PO COMPOUND

	Grades	Colour	Flow Rate (g/10 min) MI2= 190 /2,16 MI21=190/21, 6 ISO 1133	Density kg/m3	Typical Applications	Characteristics
Compound	G1620B	Natural	1	1030	Domestic hot and cold water	20% mineral fillers, for multi-layer pipe applications, good processability, reduced coefficient of thermal elongation
	P1600A	Natural	2.1 (MI5) 28.3 (MI21)	892	Inner layer for industrial and mining pipes	High abrasion resistance, good processability, and good compatibility with HDPE pipes

CONTACT US

Middle East and Africa

Global Headquarters

PO Box 5101
Riyadh 11422
Saudi Arabia
T +966 (011) 225 8000
F +966 (011) 225 9000
E info@sabic.com

Americas

2500 City West Boulevard
Suite 650, Houston
TX 77042
USA
T +1 713 532 4999
F +1 713 532 4994
E info@americas.sabic.com

Europe

PO Box 5151
6130 PD Sittard
The Netherlands
T +31 467 222 222
F +31 467 220 000
E info@sabic.com

Greater China

2550, Xiupu Road
Pudong Shanghai 201319, China
T +86 21 2037 8188
F +86 21 2037 8288
E stcl-sha@sabic.com.cn

Rest of Asia

One Temasek Avenue
06-01 Millenia Tower
Singapore 039192
T +65 655 725 55
F +65 653 181 01
E sappl@sabic.com

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