Technical information

Material knowledge

Polymer description	ASTM code	Temperature	Characteristics
Natural rubber (Isoprene rubber)	NR	-60°C - +70°C	+ High durability, + High elasticity, + Good cold resistance - Low petrol/oil resistance, - Low heat resistance
Styrene butadiene rubber	SBR	-55°C - +90°C	+ High durability, + High elasticity, + Good heat resistance - Low petrol/oil resistance, - Low ozone resistance
Ethylene propylene rubber	EPDM	-55°C - +120°C	+ High weather and ozone resistance,+ Good heat resistance, + Good chemical resistance, + High durability - Low petrol/oil resistance
Butyl rubber (Isobuten-isoprengummi)	IIR	-55°C - +110°C	+ High gas permeability, + Good weather & ozone resistance, + Good chemical resistance, - Low petrol/oil resistance
Nitrile rubber	NBR	-35°C - +100°C	+ High petrol/oil resistance, + Good chemical resistance - Low weather and ozone resistance
Urethane rubber	AU	-20°C - +70°C	+ High wear resistance, + Good petrol/oil resistance - Hydrolytically sensitive, - Low cold and heat resistance
Fluoroelastomers (Viton ®)	FKM	-40°C - +250°C	+ High heat resistance, + High weather and ozone resi-stance, + Good oil resistance, + Good chemical resistance - High hardness, - High price
Silicone rubber	Q	-90°C - +250°C	+ High heat resistance, + High weather and ozone resistance, + Good chemical resistance - Low petrol/oil resistance, - Hydrolysis sensitive
Chlorosulfonated polyethylene (Hypalon ®)	CSM	-40°C - +120°C	+ High chemical resistance, + Good heat resistance, + Good weather & ozone resistance - Low petrol resistance,- High price
Polyvinyl chloride	PVC	-10°C - +60°C	+ Good weather & ozone resistance, + Good wear resistance - Low temperature resistance, - Moderate petrol/oil resistance
Polytetrafluoroethylene (Teflon ®)	PTFE	-80°C - +260°C	+ High temperature resistance, + High chemical resistance, + Good weather resistance, + Low friction, + Self-lubricating, + Good gas permeability - High price, - Low elasticity
Polyurethane plastic	PUR	-30°C - +80°C	+ High wear resistance, + Good gasoline/oil resistance, + High weather and ozone resistance, - Hydrolysis sensitivity
Chloroprene rubber (Neopren®), (Polyklorobutadiengummi)	CR	-55°C - +100°C	+ Good weather and ozone resistance, + Good oil resistance, + Good heat resistance - Moderate petrol resistance
Thermoplastic polyester (Hytrel®)	TPES	-30°C - +80°C	+ High chemical resistance, + Low friction, - Low heat and cold resistance
Polyamid (Nylon®)	PA	-10°C - +80°C	+ High chemical resistance, + Low friction, + Good wear - Low heat and cold resistance
Cross-linked polyethylene	XLPE	-20°C - +80°C	+ High chemical resistance, + Low friction, + Good petrol/oil resistance - Low elasticity