FIT

MATERIAL DATA SHEET

ELASTOMER

Also available: materials approved by DVGW ("Deutscher Verein des Gas- und Wasserfaches", the German association for gas and water) as well as KTW ("Kunststoffe und Trinkwasser", a German quality standard for rubber and plastic components in contact with drinking water).

Our mixtures are free of cadmium, asbestos, and lead.

In general, they are compliant with

ASTM Abbreviation	Polymer	Registered trade name
NR	Natural rubber	Smoked Sheet, Crepe, SMR, SIR
IR	Isoprene rubber	Cariflex IR, Natsyn, Ameripol
SBR	Styrene-butadiene rubber	Buna Hüls, Polysar S, Cariflex
BR	Butadiene- rubber	Buna CB, Cariflex BR, Ameripol
IIR	Isobutene-isoprene rubber / Butyl rubber	Polysar Butyl, Bucar
EPDM	Ethylene-propylene-diene rubber	Buna AP, Keltan, Vistalon
ACM	Acrylate rubber	Hycar
NBR	Nitrile butadiene rubber	Perbunan, Hycar, Chemigum N
HNBR	Hydrogenated nitrile rubber	Therban
ECO	Epichlorohydrin	Herclor C, Hydrin 200
CR	Chloroprene rubber	Neoprene, Baypren
CSM	Chlorosulfonated polyethylene	Hypalon
AU/EU	Polyurethane rubber	Urepan
Q, MQ, VMQ	Silicone rubber	Silopren, Silastomer, Silastic
FKM / FPM	Fluororubber	Viton, Fluorel, Tecnoflon
FVMQ / MFQ	Fluoro silicone rubber	Silastic-Fluorsilicon

The optimal material quality will be determined in close dialogue with the customer from a huge variety of elastomer mixtures. Relevant factors for the choice of material are: Chemical, mechanical, and physical requirements

Eigenschaften	NR	IR	SBR	BR	IIR	EPDM	ACM	NBR	HNBR	ECO	CR	CSM	AU	Q	FKM	FVMQ
Shore hardness A	30-85	30-85	35-80	30-80	40-75	30-80	40-85	30-85	40-90	40-80	30-80	45-80	55-90	30-80	60-85	40-80
Tensile strength	1	2	2	4	3	3	3	2	2	3	2	3	1	4	3	3
Elongation at break	1	1	2	3	2	3	3	2	2	3	2	3	2	4	3	1
Rebound resilience	2	2	3	1	6	3	5	3	3	2	3	4	3	3	5	5
Abrasion resistance	2	2	2	1	3	3	4	2	2	3	2	3	1	5	4	4
Tear resistance	2	2	3	5	3	3	4	3	3	3	2	4	3	6	3	3
Max. hot air temperature	+90	+90	+100	+100	+140	+130	+150	+130	+180	+145	+120	+130	+120	+200	+220	+220
Min. temperature	-50	-40	-40	-60	-40	-40	-40	-40	-40	-40	-30	-40	-20	-80	-25	-70
Aging resistance	3	3	3	3	2	1	2	3	1	2	2	2	2	1	1	1
Ozone resistance	4	4	4	3	2	1	2	3	1	2	2	2	2	1	1	1
Gasoline resistance	6	6	4	5	6	5	1	1	1	1	2	2	1	5	1	1
Oil and grease resistance	6	6	5	6	6	4	1	1	1	1	2	2	1	1	1	1
Acid resistance	3	3	3	3	2	1	5	4	4	5	2	2	5	5	1	1
Alkaline resistance	3	3	3	3	2	2	5	3	3	5	2	2	5	5	1	1
Hot water resistance	3	3	2	3	1	2	5	3	2	4	3	3	5	5	2	2

Bewertung: 1 = excellent 2 = very good 3 = good 4 = sufficient 5 = poor 6 = deficient

This overview can describe the scenario of properties of single rubber vulcanizates only as a general directive. Deductions to specific mixtures can only be partially valid as optimization of one property in a mixture can negatively affect other properties.

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