

Typical Properties of Vulcanized Rubber



		Natural Rubber	Styrol-Butadiene Rubber	Butyl-Rubber	Ethylene-Propylene-Diene Rubber	Silicone Rubber	Chloroprene-Rubber	Nitrile-Rubber	Fluoro-Rubber
International Symbol		NR	SBR	IIR	EPDM	VMQ	CR	NBR	FKM
Trade Name, for e.		SMR	Buna-Hüls EM	Polysar-Butly	Buna AP Keltan	Elastosil Silastic	Baypren Neoprene	Perbunan Krynac	Viton Fluorel
Durometer Shore A		30-90	35-95	30-80	30-90	30-85	25-90	30-95	40-90
Mechanical Properties @ Room temperature	Tensile strength (bei aktiv gefüllten Mischungen)	1	2	3	3	4	2	2	3
	Elongation	1	2	1	3	4	2	2	3
	Resilience	1	3	6	2	3	3	4	6
	Tear growth resistance	2	3	3	3	4	2	3	4
	Abrasion (for mixtures with reinforced fillers)	3	3	4	3	5	3	2	4
	Resistance to permanent deformation								
	At high Temperatures	4	4	2	3	1	4	3	1
	At low Temperatures	2	3	2	3	1	4	4	5
Thermal Properties	Cold flexibility	2	3	2	3	1	3	4	5
	Heat Resistance	6	6	4	4	1	4	4	1
Chemical Resistances	Benzine	6	5	5	6	5	3	2	1
	Mineral Oil (at 100° C)	6	5	6	5	2	3	1	1
	Acid (25%ige H ₂ SO ₄ at 50° C)	4	4	1	1	4	2	2	1
	Base (50%ige NaOH at 50° C)	2	2	1	1	6	2	6	1
	Water (at 100° C)	5	5	2	1	2	3	2	3
	Weathering and Ozone	4	4	3	1	1	2	5	1
	Light	4	4	3	2	1	3	4	1
Gas Permeability		5	4	1	4	6	3	2	1

Classification

1

very good

2

good

3

satisfactory

4

sufficiently

5

inconveniently

6

bad

This representation shows the characteristics of the various rubber vulcanisates merely indicative again. Can optimize a specific property in a mixture other characteristics are adversely affected.

Thus, conclusions can only be draw due to concrete mixtures.

