Material data

Matrix 1

			Polyurethanes								Elastomers							Thermoplastics										Thermoset
Properties	DIN	Unit	ECOPUR	H-ECOPUR	G-ECOPUR	T-ECOPUR	S-ECOPUR	X-ECOPUR	XH-ECOPUR hydrolysis resistant	XS-ECOPUR + solid lubricants	SKF ECORUBBER-1	SKF ECORUBBER-H	SKF ECORUBBER-2	SKF ECORUBBER-3	SKF ECOSIL	SKF ECOFLAS	SKF ECOFLON 1	SKF ECOFLON 2 +25% GF + 5% MoS2	SKF ECOFLON 3 +40% bronze	SKF ECOFLON 3F +40% bronze	SKF ECOFLON 4 +25% Carbon	SKF ECOFLON 5 modified	SKF ECOMID	SKF ECOTAL	SKF ECOWEAR 1000	SKF ECOPAEK	SKF ECOTEX
			TPU	TPU	CPU	TPU	TPU	TPU	TPU	TPU	NBR	HNBR	FPM, FKM	EPDM	MVQ	TFE/P	PTFE virgin	PTFE	PTFE	PTFE	PTFE	PTFE	PA	POM	UHMWPE	PEEK	–
Colour			Green	Red	Red	Blue	Grey/ black	Dark green	Dark red	Dark grey	Black	Black	Brown	Black	Reddish brown	Black	White	Grey	Bronze	Green	Black	White	Black	Black	White	Cream	Light orange
Hardness	53505	Shore A	95 ± 2	95 ± 2	95 ± 2	95 ± 2	95 ± 2	97 ± 2	97 ± 2	97 ± 2	85 ± 5	85 ± 5	85 ± 5	85 ± 5	85 ± 5	83 ± 5	–	–	–	–	–	–	–	–	–	–	–
Hardness	53505	Shore D	48 ± 3	48 ± 3	47 ± 3	48 ± 3	48 ± 3	56 ± 3	59 ± 3	59 ± 3	34	34	34	34	34	31	57	60	64	64	65	59	77	82	61[2]	86	M98[1]
Density	EN ISO 1183	g/cm^3	1,2	1,2	1,2	1,17	1,23	1,21	1,22	1,25	1,31	1,22	2,3	1,22	1,52	1,6	2,17	2,25	3	3,13	2,1	2,16	1,15	1,41	0,93	1,32	1,21
100% modulus	53504	N/mm^2	12	≥13	≥11	≥12	17	21	25	25	≥11	≥10	≥5	≥9	≥5	8	–	–	–	–	–	–	–	–	–	–	–
Tensile strength/yield stress	53504/53455	N/mm^2	≥50	≥50	≥45	≥50	48	50	50	43	≥16	≥18	≥8	≥12	≥7	13	27	18	22	22	15	30	65	62	20	97	
Elongation at break	53504/53455	%	≥450	≥330	≥280	≥450	400	400	350	350	≥130	≥180	≥200	≥110	≥130	220	300	200	280	300	150	360	120	40	–	≥50	–
Modulus of elasticity – tensile test	53457	N/mm^2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1 800	26 00	600	3 600	–
Compression set																											
70 °C/24h 20% def.		%	≤27	≤27	≤30	20[3]	25	24	26	30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
100 °C/24h 20% def.		%	≤33	≤33	≤40	45[4]	30	29	30	35	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
100 °C/22h	ISO 815	%	–	–	–	–	–	–	–	–	≤15	≥22	–	≤15	–	–	–	–	–	–	–	–	–	–	–	–	–
175 °C/22h	ISO 815	%	–	–	–	–	–	–	–	–	–	–	≤20	–	≤15	29	–	–	–	–	–	–	–	–	–	–	–
Rebound resilience	52512	%	42	29	43	50	–	–	–	–	28	29	7	38	44	–	–	–	–	–	–	–	–	–	–	–	–
Tear strength	ISO 34-1	N/mm	≥100	≥100	≥40	80	120	140	170	180	20	30	21	15	8	19	–	–	–	–	–	–	–	–	–	–	–
Abrasion	DIN ISO 4649	mm^3	18	17	25	15	21	18	20	29	90	90	150	120	–	110	–	–	–	–	–	–	–	–	–	–	–
Minimum service temperature		°C	–30	–20	–30	–50	–20	–30	–20	–20	–30	–25	–20	–50	–60	–10	–200	–200	–200	–200	–200	–200	–40	–50	–200	–60	–40
Maximum service temperature		°C	+110	+110	+110	+110	+110	+110	+110	+110	+100	+150	+200	+150	+200	+200	+260	+260	+260	+260	+260	+260	+100	+100	+90	+260	+120

[1] Rockwell hardness
[2] DIN EN ISO 868
[3] DIN ISO 815: 70 °C/70h, 10% def.
[4] DIN ISO 815: at -40 °C

Data of other materials such as low temperature SKF ECORUBBER-H 85A-b-LT, special food grade materials etc. are available on request.