RollerTech

Silicone Elastomers and Available Production Processes

Properties	Unit	HTV (high consistency silicone)								LTV/LSR (liquid silicone)							
		KB3306	KB3330	KB3331	KB3302	KB3309	KB3304	KB3333	KB3308	KB32139	KB32115	KB32141	KB32116	KB3237	KB3220	KB3257	KB3223
Hardness	Shore A	20	25	33	40	45	50	60	50	3	5	10	20	40	40	58	68
Tensile strength	N/mm²	1.5	1.8	2.3	3.0	3.0	2.3	2.8	7.0	0.9	1.1	1.3	1.6	2.5	6.5	5.0	5.5
Elongation at break	%	300	300	350	180	350	280	220	350	350	300	300	230	130	450	200	150
Compression set (22 h/175 °C/25 % deformation)	%	10	10	8	6	10	10	7	30	6	6	4	3	7	15		
Thermal conductivity	W/m*K	0.2	0.2	0.2	0.2	0.50	0.8	1.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Volume resistivity	Ω*cm	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	1.0E03	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14
Available production processes																	
Injection molding										✓	✓	✓	✓	✓	✓	✓	✓
Extrusion		✓	✓	✓	✓	✓	✓	✓	✓								
Axial coating															✓	✓	✓
Casting										✓	✓	✓	✓	✓	✓	✓	✓
Blade coating															✓	✓	✓
Spray coating															✓	✓	✓

Properties	Unit	LTV/LSR (liquid silicone)								LTV/LSR (liquid silicone)				LTV/LSR (liquid silicone)			
		KB32117	KB32118	KB32133	KB3292	KB3229	KB3293	KB3227	KB3203	KB32122	KB32155	KB32156	KB3112	KB3274	KB3261	KB3273	KB3288
Hardness	Shore A	6	20	30	30	35	40	50	55	6	8	20	50	10	15	20	60
Tensile strength	N/mm²	0.9	1.8	2.0	0.8	1.7	1.5	1.9	7.0	0.3	0.5	1.0	6.0	0.5	0.5	0.6	4.0
Elongation at break	%	400	250	250	200	260	80	130	180	280	250	200	120	210	250	130	300
Compression set (22 h/175 °C/25 % deformation)	%	16	10	15	30	7	5	15	6	3	3	3	10	3	6	3	4
Thermal conductivity	W/m*K	0.8	0.8	0.8	1.3	0.5	0.9	0.8	0.35	<0.2	<0.2	<0.2	<0.2	0.2	0.2	0.2	0.2
Volume resistivity	Ω*cm	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	>1.0E14	≤1.0E05	≤1.0E04	≤1.0E05	≤1.0E04
Available production processes																	
Injection molding		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extrusion																	
Axial coating		✓	✓	✓	✓	✓	✓	✓	✓						✓		
Casting		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Blade coating		✓	✓	✓	✓	✓	✓	✓	✓						✓		
Spray coating																	