

1. Silicone rubber: general properties



Classification		For general purpose								
Grade		KE-931-U	KE-941-U	KE-951-U	KE-961-U	KE-971-U	KE-981-U	KE-961T-U	KE-971T-U	X-30-3491-U
Appearance		Milky white translucent			Grayish white			Milky white translucent		Grayish white
Density 23°C g/cm ³		1.07	1.11	1.14	1.22	1.30	1.42	1.17	1.20	1.29
Williams plasticity (10 min after remlx)		160	190	240	280	360	420	280	340	290
Curing agent	Curing agent name	C-8	C-8	C-8	C-8	C-8	C-8	C-8A	C-8	C-8A
	Standard addition quantity*1	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0	0.3
Linear shrinkage*2 %		4.0	3.9	3.9	3.4	3.0	2.7	3.6	3.4	—
Physical strength	Hardness Durometer A	31	43	52	63	71	84	62	71	69
	Tensile strength MPa	4.7	6.5	8.2	7.3	7.5	8.8	9.7	8.8	7.0
	Elongation at break %	480	365	325	320	220	100	310	260	170
	Tear strength crescent piece kN/m	15*3	15*3	23*3	20*3	20*3	8	25*3	25*3	7
Compression set 180°C/22 h		15	11*4	11*4	11*4	9*4	12*4	—	11	12*4
Dielectric breakdown strength kV	Normal state	—	23	24	25	25	24	—	—	—
	Submerged	—	21	20	25	24	23	—	—	—
Volume resistivity TΩ·m	Normal state	—	30	8	6	3	4	—	—	—
	Submerged	—	40	5	4	3	3	—	—	—

(Not specified values)

Classification		Non post-curing					For thick section molding			
Grade		KE-742-U*5	KE-752-U*5	KE-762-U*5	KE-772-U*5	KE-782-U*5	KE-850-U	KE-870-U	KE-880-U	KE-890-U
Appearance		Light yellow	Grayish white				Milky white translucent	Grayish white		
Density 23°C g/cm ³		1.10	1.30	1.36	1.40	1.43	1.16	1.35	1.45	1.55
Williams plasticity (10 min after remlx)		180	200	240	270	330	220	350	450	550
Curing agent	Curing agent name	C-4	C-4	C-4	C-4	C-4	C-4	C-4	C-4	C-8
	Standard addition quantity*1	4.0	2.8	2.7	2.7	2.7	4.0	4.0	4.0	1.5
Linear shrinkage*2 %		3.6	3.0	2.7	2.6	2.5	3.9	2.9	2.7	—
Physical strength	Hardness Durometer A	45	53	60	71	79	56	72	80	87
	Tensile strength MPa	4.4	6.0	6.7	7.5	8.5	7.6	8.3	8.5	6.0
	Elongation at break %	300	250	250	200	160	300	140	100	80
	Tear strength crescent piece kN/m	8	9	11	13	14	9	11	7	—
Compression set 180°C/22 h		12	12	12	16	18	9*4	5	7*4	18
Dielectric breakdown strength kV	Normal state	26	29	26	26	29	23	23	25	—
	Submerged	27	30	25	26	29	23	23	25	—
Volume resistivity TΩ·m	Normal state	100	20	10	100	20	10	5	2	—
	Submerged	90	10	10	70	10	8	3	2	—

Measurement: In accordance with JIS K 6249 Test pieces: 165°C/10 min (press cure), 200°C/4 h (post cure)

(Not specified values)

*1 Standard addition quantity is the quantity of curing agent added to 100 parts compound.

*2 Linear shrinkage values differ according to the curing agent used.

*3 Angle piece

*4 Measured values at 150°C/22 h.

*5 The data below linear shrinkage is based on measurements on a product by compression molding at 170°C/10 min (with no post cure).

[Unit conversion] tensile strength: 10 kgf/cm² = 0.98 MPa; tear strength: 1 kgf/cm = 0.98 kN/m; volume resistivity: 10¹⁴Ω·cm = 1 TΩ·cm.

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