Translucent Silicone Elastomer

TSE2523U TSE2527U

TSE2523U and **TSE2527U** are general purpose silicone elastomer which have hardness of 35 and 70 respectively. They can be blended to provide hardness between 35 and 70.

KEY FEATURES

- Easily compounded and fabricated using conventional techniques.
- Formulation versatility to achieve end use requirements

APPLICATIONS

- Wire & Cable
- Tubing
- Other rubber parts

TYPICAL PROPERTY DATA

PROPERTIES		TSE2523U	TSE2527U
UNCURED COMPOUND			
Appearance		Translucent	Translucent
Specific gravity (23℃)		1.11	1.16
Williams plasticity		160	260
CURED COMPOUND *(Press cure 10min @170°C; Post cure 4hrs @200°C)*			
TC-8 curing agent	Phc	0.8	
MECHANICAL PROPERTIES *(JIS K6249)*			
Hardness (Type A)		36	72
Tensile strength	MPa {kgf/cm^2}	7.7 {78}	9.3 {95}
Elongation	%	790	320
Tear strength (Angle)	N/mm {kgf/cm}	20 {20}	28 {29}
Compression set (22h@180°C)	%	29	29
CURED COMPOUND *(Press cure 15min @120°C; Post cure 4hrs @200°C)*			
TC-12 curing agent	Phc	1.2	
MECHANICAL PROPERTIES *(JIS K6249)*			
Hardness (Type A)		38	70
Tensile strength	MPa {kgf/cm^2}	8.4 {86}	10.0 {102}
Elongation	%	690	390
Tear strength (Angle)	N/mm {kgf/cm}	26 {26}	32 {33}
Compression set (22h@180°C)	%	66	65

TC-8 : 2,5-Dimethyl-2,5-di-t-butylperoxyhexane
TC-12 : p-Methylbenzoylperoxide

Typical property data values should not be used as specifications. Assistance and specifications are available by contacting GE Toshiba Silicones Commercial Office

TSE2523U,TSE2527U

HEAT AGING, OIL RESISTANCE

TSE2523U		100	100		
TSE2527U				100	100
TC-8 Press cure 10min @170°C Post cure 4hrs @200°C		0.5		0.5	
TC-12 Press cure 15mins @120°C Post cure 4hrs @200°C			1.2		1.2
Heat Aging 70hrs @200°C					
Hardness change (Type A)	(point)	9	5	4	4
Tensile Strength change	%	-6	-5	-8	-12
Elongation change	%	-14	-31	-33	-30
Weight change	%	-0.8	-0.8	-0.7	-0.6
Heat Aging 70hrs @230°C					
Hardness change (Type A)	(point)	13	6	6	7
Tensile Strength change	%	-61	-21	-29	-30
Elongation change	%	-50	-43	-67	-67
Weight change	%	-1.7	-1.3	-1.6	-1.6
Oil Resistance ASTM#1 70hrs @150°C					
Hardness change (Type A)	(point)	-15	-16	-3	-3
Tensile Strength change	%	-66	-44	-31	-39
Elongation change	%	-19	-10	-41	-22
Volume change	%	5.0	4.8	5.0	4.8
Oil Resistance IRM903 70hrs @150°C					
Hardness change (Type A)	(point)	-27	-33	-31	-27
Tensile Strength change	%	-80	-79	-47	-52
Elongation change	%	-57	-51	-41	-33
Volume change	%	76.5	73.4	49.1	48.6

TYPICAL PROPERTY DATA OF BLENDED COMPOUND

TSE2523U		75	75	50	50	25	25
TSE2527U		25	25	50	50	75	75
TC-8 Press cure 10min @170°C Post cure 4hrs @200°C		0.8		0.8		0.8	
TC-12 Press cure 15mins @120°C Post cure 4hrs @200°C			1.2		1.2		1.2
Hardness (Type A)		48	49	58	58	65	66
Tensile strength	MPa	10.4	9.5	10.3	10.9	10.4	10.8
Elongation	%	650	540	530	500	400	390
Tear strength (Angle)	N/mm	24	26	26	28	27	29

TSE2523U,TSE2527U

HANDLING, SAFETY AND STORAGE

- Wear eye protection and protective glove when handling this product.
- Store in a cool and dry place out of direct sunlight.
- Keep out of the reach of the children.

PACKAGING

20kg box

ADDITIVES & MODIFIERS

To modify the processing and / or cured physical properties of the bases, various additives are available.

Additives	When to Use
ME400-HA1	**Heat aging stabilizer for translucent rubber** Used at 0.3-1.0 parts per 100 parts of compounding base or blends thereof to improve that heat age resistance.
ME400-HA2	**Heat aging stabilizer for low compression set rubber** Used at 1.0-2.5 parts per 100 parts of compounding base or blends thereof to improve that heat age resistance.
ME400-HA3	**Heat aging stabilizer for flame retardant rubber (together with ME400-FR)** Used at 1.0-2.5 parts per 100 parts of compounding bases or blends thereof to improve that heat age resistance.
ME400-OR	**Additive to improve oil resistance** Used at 0.5-2.0 parts per 100 parts of compounding bases or blends thereof to improve that oil resistance.
ME400-FR	**Flame retardant additive** Used at 1.0-2.5 parts per 100 part of compounding bases or blends thereof to improve the flame retardancy.
ME400-MR	**Additive to improve mold releasing efficiency** Used at 0.2-1.0 parts per 100 parts of compounding bases or blends thereof to improve that mold releasing efficiency and adherence to wire.
ME400-AY	**Additive for anti yellowing** Used at 0.5-2.0 parts per 100 parts of compounding bases or blends thereof to improve that yellowing.

TSE2523U, TSE2527U E
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