

High Cold Resistant Silicone Rubber

KE-183-U, KE-186-U

Millable Formed Silicone Rubber with Excellent Vibration Absorption in a Wide Temperature Range

High cold resistance

Weather resistance

Low compression set

Radiation resistance

Compression molding

Extrusion molding



Features

- Organic rubber embrittles even at -30 degrees, it maintains elasticity and is excellent in extremely low temperature characteristics.
- Even in -100 degrees, the increase in the elastic modulus E' is small.
- Excellent low-temperature sealability due to low compression set.

Applications

Aerospace, high-pressure hydrogen tank gaskets, refrigeration equipment gaskets, and other rubber parts that require low-temperature characteristics



General properties

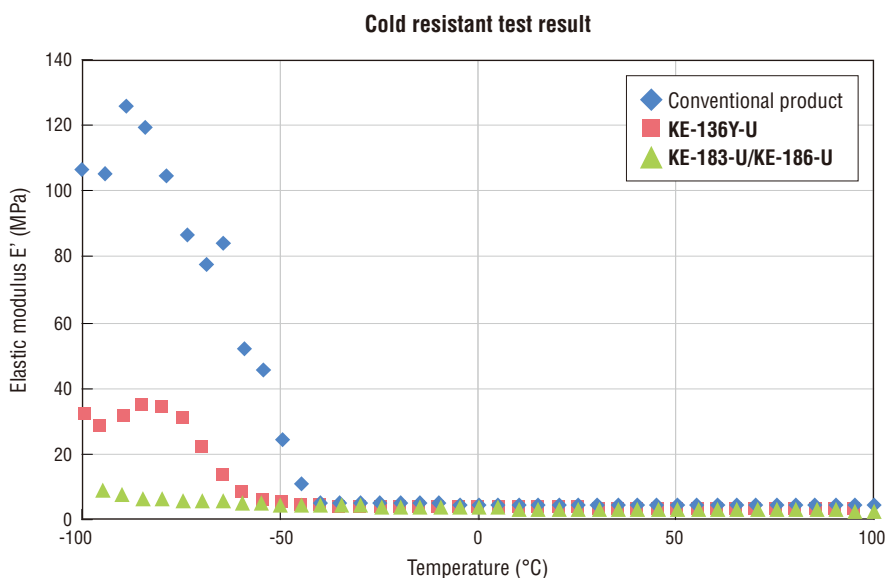
Grade	Product name	High cold resistant products				Cold resistant product	
		KE-183-U		KE-186-U		KE-136Y-U	
Parameter		Translucent		Translucent		Pale yellow	
Appearance		189		277		220	
Plasticity		189		277		220	
Curing agent	Curing agent name	C-23N	C-8	C-23N	C-8	C-23N	
	Standard addition quantity	0.7	2.0	0.7	2.0	0.7	
Standard molding condition	Primary cure	120°C × 10 min	165°C × 10 min	120°C × 10 min	165°C × 10 min	120°C × 10 min	
	Post cure	200°C × 4 h	200°C × 4 h	200°C × 4 h	200°C × 4 h	200°C × 4 h	
Hardness Durometer A		31	36	62	65	52	
Density at 23°C	g/cm ³	1.11	1.12	1.19	1.19	1.16	
Tensile strength	MPa	8.7	8.2	11.2	11.0	10.2	
Elongation at break	%	640	550	570	480	620	
Tear strength	kN/m	Crescent	10	8	25	19	32
		Angle	24	20	27	27	—
Compression set 150°C x 22 h	%	14	6	23	12	16	
Modulus of resilience	%	53	64	41	46	—	

(Not specified values)

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Even in -100 degrees, the increase in the elastic modulus E' is small.



* This value is not a specification value or guaranteed value.

Handling precautions

1. Silicone rubber may react with strong oxygen agents.
2. Uncured substance generates silica. Please handle with caution.

Safety and hygiene

1. This product causes serious eye irritation and may cause skin irritation. When handling the product, be sure to avoid contact with the skin and mucous membranes by wearing protective glasses and protective gloves. In case of skin contact, immediately wipe off with dry cloth and then flush thoroughly with running water. In case of accidental eye contact, flush immediately with plenty of clean water

for at least 15 minutes and then seek medical attention. Contact lens wearers must take special care. If the products get into the eye, the contact lens may become stuck to the eye.

2. In a confined space with poor ventilation, please wear a protective mask. It is recommended to provide local ventilation. If vapors are inhaled and victims feel uncomfortable, move immediately to an area with fresh air. When you put non-hardening substance into the discard, silica and other powder generate. So you should wear a protective mask.
3. Keep out of reach of children.
4. Please read the Safety Data Sheets (SDS) before use. SDS can be obtained from our Sales Department.

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