

General purpose
Silicone elastomer

SH5180U



FEATURES

- General-purpose silicone rubber

BENEFITS

- Excellent process ability
- Excellent mold releasing ability
- Excellent mechanical properties

COMPOSITION

- Silicone polymer
- Silica

1. Product Description

SH5180U is general purpose type heat cured compounds for compression molding

2. Applications

O-ring, Gasket, Sheets, Key pad

3. Key Performance Properties

- Excellent process ability
- Well balanced physical properties
- Low yellowness
- 80 durometer grade available

4. Typical properties

Properties	Test method	Unit	SH5180U	
Appearance	ASTM E1767	-	반투명	
Williams plasticity	ASTM D926	-	320	
Curing condition	Curing agent	-	¹⁾ KC-8	³⁾ DCP
	Amounts	phr	0.5	1.0
	Press 1 st cure	-	10mins, 170°C	10mins, 170°C
	Oven 2 nd cure	-	4hrs, 200°C	4hrs, 200°C
Specific gravity	ASTM D792	-	1.22	1.23
Hardness	ASTM D2240	Shore A	80	81
Tensile strength	ASTM D412	MPa	7.0	6.3
Elongation	ASTM D412	%	210	212
Tear strength	ASTM D624 C	N/mm	22.0	25.0
	ASTM D624 B		13.0	-
Linear shrinkage	JIS K6249	%	4.0	4.4
Compression set (22hrs at 175°C)	ASTM D395	%	15	15

1) KC-8 : 2,5-dimethyl 2,5-di(t-butyl peroxy) hexane 45 % paste

2) KC-2 : 2,4-dichlorobenzoyl peroxide 50% paste

3) DCP : Dicumyl peroxide 40% paste

※ Typical properties should not be used as specifications

They are evaluated in laboratory, and can be different from test condition.

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5. How to use

For blending or coloring, milling with two-roll mill is the most suitable process. Milling time should be carefully decided to secure uniformity of materials.

6. Limitation

The featured product must be checked prior to use.

- 1) If applying to other purposes, defects can be generated.
- 2) If using non-suggested curing agents, its own properties can be altered.
- 3) If mixing with other products, degradation of properties and defects can be caused.
- 4) Additives or pigments must be used under technical support of KCC.
- 5) If it's first use, product must be applied after technical suggestion and assistance of KCC.

Any other inquiries or methods of use can be found on KCC webpage and enquired technical support team at KCC.

7. Handling Precautions

- Wear eye protection and protective gloves when handling this product.
- If contact with Pt component, curing may occur.
- Material Safety Data Sheets are available upon request from KCC.

8. Safety and Storage

- Use it within 12 months from the date of manufacture.
- Keep out of the reach of the children.
- During transportation, try to avoid direct sunlight. Conditions of under 30°C with shade is commended.
- If store condition is not fulfilled, the products' lifetime may be affected. Also, deterioration of the products' quality within shelf life time may occur.

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9. Packaging

20 kg box, 480kg box

10. Warranty Information – *Please read carefully*

This TDS is considered to be accurate. KCC's guarantee of the product will apply, only if conditions on TDS (limitation, notice, application) are fulfilled within expiry date. If not, KCC cannot guarantee the quality of the product.

KCC's sole warranty is that the product will meet the KCC sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to replacement of any product shown to be other than as warranted.

KCC specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless KCC provides you with a specific, duly signed endorsement of fitness for use, KCC disclaims liability for any incidental or consequential damages.

Suggestions of use shall not be taken as inducements to infringe any patent.

11. The date of issue

The first date of issue : 2009.03.01

The revised date of issue : 2015.08.01 (3rd)

※ Please refer to MSDS if you want to know more specific usage or caution.
For further information, please visit our website, www.kccsilicone.co.kr.