

ANCILLARY PRODUCTS FOR USE WITH ACC 'SILCOSET', RTV 2018 AND CERTAIN ACC 2-PART RTV SILICONE RUBBERS

INTRODUCTION

The ancillary product described in this data are mainly intended for use in conjunction with ACC 'Silcoset'101 and 105, ACC SE2005, RTV2018, 2- part RTV silicone rubbers.

'Silcoset' CA 28 is normally supplied as the standard catalyst in the appropriate quantity with each delivery of 2-part RTV 'Silcoset' rubber compound, unless an alternative is specified.

Bulked curing agent FR is designed for use with RTV 2018 or to produce a flame-retardant rubber.

Details on the use of other ancillaries – 'Silcoset' primer, 'Silcoset' Bulked Curing Agent Blue, and ACC Rapid Curing Agent are given in the text.

Ancillary Products: Description, General Characteristics, Properties and Methods of Application

1. <u>CA28</u>

Description : Organo-tin acylate

Appearance : Colourless to pale yellow liquid

Density, at 25°C g/ml : 1.14

Flash Point, °C : 153 (Cleveland Open Cup)

How to use

Full details are given in the literature for each type of ACC 'Silcoset' 2-part RTV Rubber

2. 'Silcoset' Bulked Curing Agent Blue

Description: A blend of fillers, polydimethylsiloxane polymers and organo-tin

compound.

This is a dilute version of the CA28 curing agent and is supplied in the

form of a pourable blue liquid. It provides an excellent visual check on mixing efficiency.

Appearance : Viscous blue liquid

Density at 25°C g/ml: Approx. 1.6

How to use

This bulked curing agent is suitable for use in dispersing equipment, a ratio of 10 parts by weight of 'Silcoset' liquid rubber compound to 1 part of weight of bulked curing agent being recommended.

Table 1 shows the typical pot lives, tack free times and cure through for 'Silcoset' 2 part RTV's using the above ratio with ACC Bulked Curing Agent Blue.

Table 1 (at 23 +/- 2°C and 65% humidity)

'Silcoset' Rubber Compound	Pot life	Tack-free Time	Cure Through
	Н	Н	Н
'Silcoset' 101	0.75 - 1.0	1 – 2	24
'Silcoset' 105	0.75 - 1.0	1 – 2	24

3. ACC Bulked Curing Agent FR.

Description: A complex blend of curing agent, fire retardant compounds,

Polymethylsiloxane and fillers.

This product has been specially developed for use with ACC 2-part RTV 2018 to produce excellent flame retardant

silicone rubbers.

Appearance : Green viscous liquid

Density @ 25°C g/ml : 1.07

How to use

When mixed in the recommended proportions-

ACC RTV 2018 or 'Silcopac' 121 100 parts by weight ACC Bulked Curing Agent FR 25 parts by weight

Flammability tests have shown that the cured rubber meets the SE O Classification as detailed in the Underwriters Laboratory Specification. The cured rubber test strip has an average burning time of less that 3 seconds.

Flammability tests on the cured elastomer have also been carried out according to BS415:1979, section 14.4b. The results showed that the cured rubber made from the aforementioned proportions of compound and 'Silcopac' Bulked Curing Agent FR were well within the specification limits for flame retardancy.

The information and recommendations in this publication are to the best of our knowledge reliable. However nothing herein is to be construed as a warranty or representation. Users should make their own tests to determine the applicability of such information or the suitability of any products for their own particular purposes. Statements concerning the use of the products described herein are not to be construed as recommending the infringement of any patent and no liability for infringement arising out of any such use is to be assumed.

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4. ACC 'Silcoset' Primer

Description : A special silicone air-drying resin in selected solvents

Appearance : Fluorescent, pink liquid

Density @ 25°C: 0.86

Flash Point °C : -12°C

How to Use

For all applications it is recommended that intending users carry out a small scale test to determine the suitability of the bond produced.

All surfaces to be bonded to a 2-part rubber must be thoroughly cleaned; wiping with an organic solvent such as ACC 52 Degreaser is normally sufficient. 'Silcoset' Primer should be applied by dipping or brushing, but NOT spraying. Only apply on coat, do not apply a second Coat even if the primer appears 'streaky' as too much primer will cause adhesion failure.

The primer should be applied in a well-ventilated area and allowed to dry for 30-45 minutes, before applying 'Silcoset' or other 2-part RTV's

N.B. Rapid curing of the 'Silcoset' rubber has been found to have an adverse effect of the bond strength. Catalyst levels of 'Silcoset' Curing Agent A of 0.2 to 0.3% have been shown to produce the best results. If the above procedure is followed, the bond obtained will generally be stronger than the 'Silcoset' rubber itself.

5. ACC Rapid Curing Agent

Description : A tin compound

Appearance : Clear Pale yellow liquid with a characteristic odour

Density @ 25°C g/ml : 1.27

Boiling Point, 0°C : >200

How to Use

This catalyst may be employed at levels of 0.3 to 1% of the rubber compound as an alternative to 'Silcoset' Curing Agent A. However, as its name implies, the curing time of the rubber to a tack-free state is reduced to a matter of a few minutes.

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Because good adhesion is best achieved with slower controlled curing conditions, ACC Rapid Curing Agent should not be employed where good adhesion is important.

In addition, because of the very rapid cure and short pot-life, it is inadvisable to use ACC Rapid Curing Agent to cure more than a few hundred grams of rubber compound at a time.

Storage

Curing Agents should be stored in the original container, preferably at temperatures ranging from 20°C to 30°C.

'Silcoset' CA28 has a tendency to solidify at temperatures below 0°C. General warming will restore any product so affected, to its normal liquid state.

If Bulked Curing Agents are exposed to low temperatures, crystallisation of the active compound may occur causing thickening of the material. If this occurs, the product should be warmed to about 20° to 25°C with regular stirring.

N.B. All containers of Bulked Curing Agent must be stirred before use.

In general shelf lives of 6-9 months are applied to most 2-part RTV ancillary products. Further advice is available from ACC Silicones Ltd.

Packages

ACC CA28 is supplied as standard with all orders for ACC 'Silcoset' 2-part RTV silicone rubbers and with RTV 2018 and SE 2005 unless otherwise specified.

ACC Bulked Curing Agent Blue R are supplied in non-returnable packs containing the following net quantities:-

1kg

ACC Silcoset Primer, , Rapid Curing Agent, are available in non-returnable packs containing the following net quantities:-

100ml and 1 litre

Health & Safety

Detailed information related to the health and safety of products mentioned in this data sheet is given in the individual Material Safety Data Sheets, available on request.

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