

SILICONE COATING AGENT TOA ACRON XS-3623TL

TOA Resin Co., Ltd.

(1)Specification

Appearance	:	colorless transparent viscid solution
Main Composition	:	Organo Polysiloxanediol, Methyl Hydrodine Polysiloxane
Solid Content %	:	26.0 ± 3.0
Solvent	:	toluene
Viscosity	:	18,000 ± 4,000 cps (20 °C)
Characteristics	:	Well compatible with TOA ACRON SA

(2)Usage

(A)Standard Recipe with Single Component:

XS-3623TL	100.0 parts
Catalyst XS-73	1.6 parts
Catalyst XS-69	1.6 parts

(B)Reference Standard Recipe with Multicomponent:

Acrylic Solution	100.0 parts
Isocyanate	2.0 parts
XS-3623TL	$3.0 \sim 6.0 \text{ parts}$
Catalyst XS-73	$0 \sim 0.1$ parts
Catalyst XS-69	$0 \sim 0.1$ parts

[Notice]

1. XS-73(catalyst which prompts the formation of the film):

Main ingredient Octyl Stannum Compound

Solvent $50\sim60\%$ toluene

2. XS-69(catalyst which provides an improvement on adhesion):

Main ingredient Silane coupling agent

Solvent 80~90% isopropyl alcohol



TOA ACRON XS-3623TL

(1)Main Agent: XS-3623TL

Main Composition: Organo Polysiloxanediol, Methyl Hydrodine Polysiloxane

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(2)Catalyst: XS-73

Main Composition: Octyl Stannum Compound

(n-C₈H₁₇)₂ Sn (OCOCHCHOCOR) ₂

(3) Additive: XS-69

Main Composition: Silane Coupling Agent

R-SiX₃(R : carbon functional group, X : silicone functional group)

(4)Crosslinking Mechanism

$$\begin{array}{c|c} SiOH + HSi & \underbrace{-\frac{H_2O}{catalyst}}_{(XS-3623TL)} & \underbrace{-\frac{H_2O}{catalyst}}_{(XS-73)} & \underbrace{-\frac{H_2O}{catalyst}}_{Si-O-Si} & \underbrace{-\frac{H_2O}{catalyst}}_{Si-O-Si} & \underbrace{-\frac{H_2O}{catalyst}}_{Si-O-Si} & \underbrace{-\frac{H_2O}{catalyst}}_{Si-O-Si} & \underbrace{-\frac{H_2O}{catalyst}}_{(XS-73)} & \underbrace{-\frac{H_2O}{catalyst}}_{Si-O-Si} & \underbrace{-\frac{H_2O}{cat$$

- * XS-69 has binding effect between organic and inorganic material and provides excellent adhesive property.
- ※ XS-73 is a catalyst for [-OH + -NCO →] reaction, so the pot-life will be shortened if XS-73 is added. But it could be improved by adding IPA (isopropyl alcohol) which supplies -OH group.

[Suggestion] IPA added is about 1 to 2 weight percentage of total composition, if needed.