UV Cure RTV Silicone Rubbers Three Cure Types

There are three types of UV cure RTV silicone rubbers: fast cure radical polymerization type, UV addition type, which cures slowly at room temperature or when heated after UV irradiation, and radical and condensation combination type, which cures areas where UV light does not reach with condensation reaction.

Radical Polymerization Type

Features: Fast cure

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UV Addition TypeFeatures: Delayed curing

Radical and Condensation
Combination Type
Features: Curable in the shade (dual cure)

Appropriate curing types can be selected depending on the usage and application of the product.

■ Types and features of UV cure types

Parameter	Туре	Radical Polymerization	UV Addition	Radical and Condensation Combination
Features		Product lines of fast cure, low to high hardness silicones and polyimide silicones	Lamination after UV irradiation (process reversal) is available. Ultra-low shrinkage with room temperature curing Shortening of curing time by low-temperature heating	Cure by condensation reaction even in places where UV light does not reach
By-product		_	_	Alcohol or acetone
Curability	UV	Rapid	Slow	Rapid
	Heating	NA	Room temperature to 80°C×1 h	NA
	Moisture	NA	NA	1 day~*1
Cure inhibition factors	Oxygen	Effected	Not effected	Effected*2
	S·N·P compounds	Not effected	Effected	Not effected
	Acids, alcohols, etc.	Not effected	Effected	Effected

^{*1} Depending on the thickness. For the curability of condensation reaction type, please see the catalog of RTV silicone rubbers for electrical & electronic applications.

^{*2} Oxygen-inhibited sites cure as a result of condensation reactions.