

**ORGANIC GLASS**



**Ma y Clean Gel 「MGSRB」**

**High transparency**

**Heat resistance**

**For plastic plate bonding**



# MGSRB

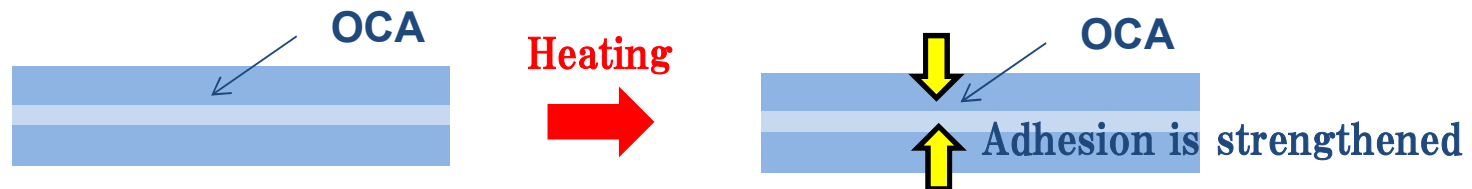
## <Specifications>

Product	Thickness μm	Peel adhesive N/25mm 25°C Adherend:PC	Peel adhesive N/25mm 200°C Adherend:PC	Optical properties
MGSRB	25~2,000	10(175μm)	50(175μm)	◎

## <Design Concept>

「MGSRB」 is cured by heat.

5 times UP



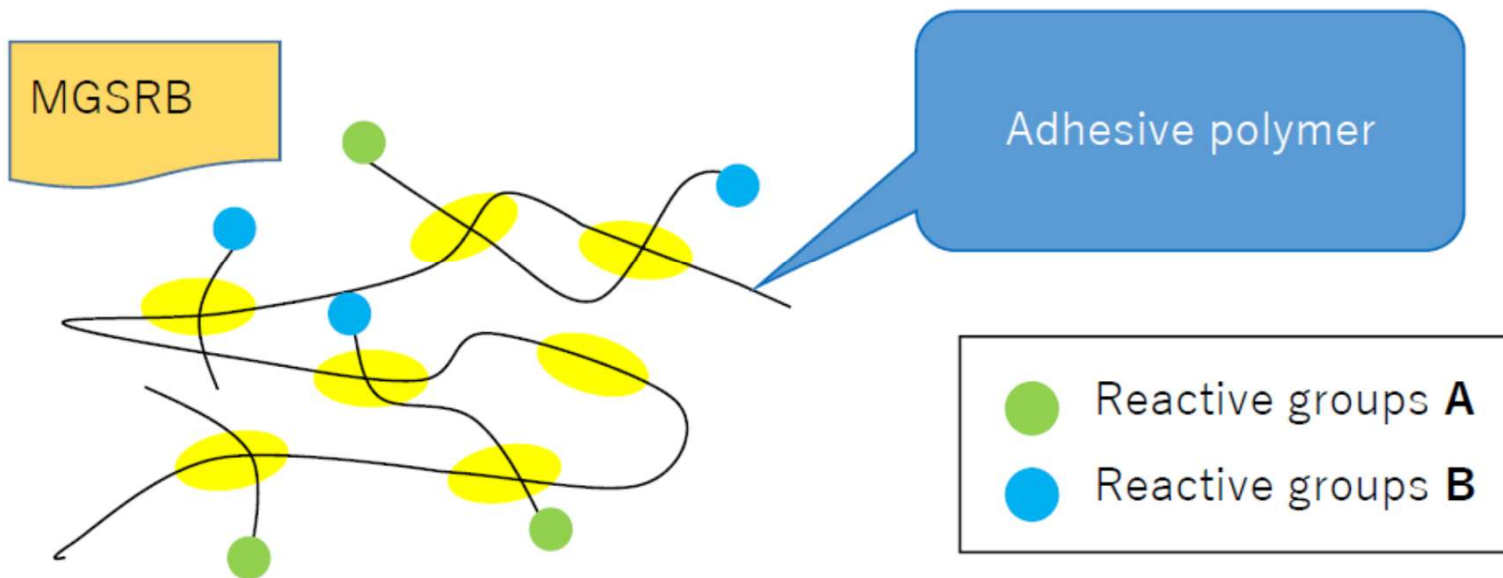
## <Features>

- High transparency
- High adhesive properties
- 200°C heat resistant performance
- Excellent shock absorption

# Heat Curing MGSRB

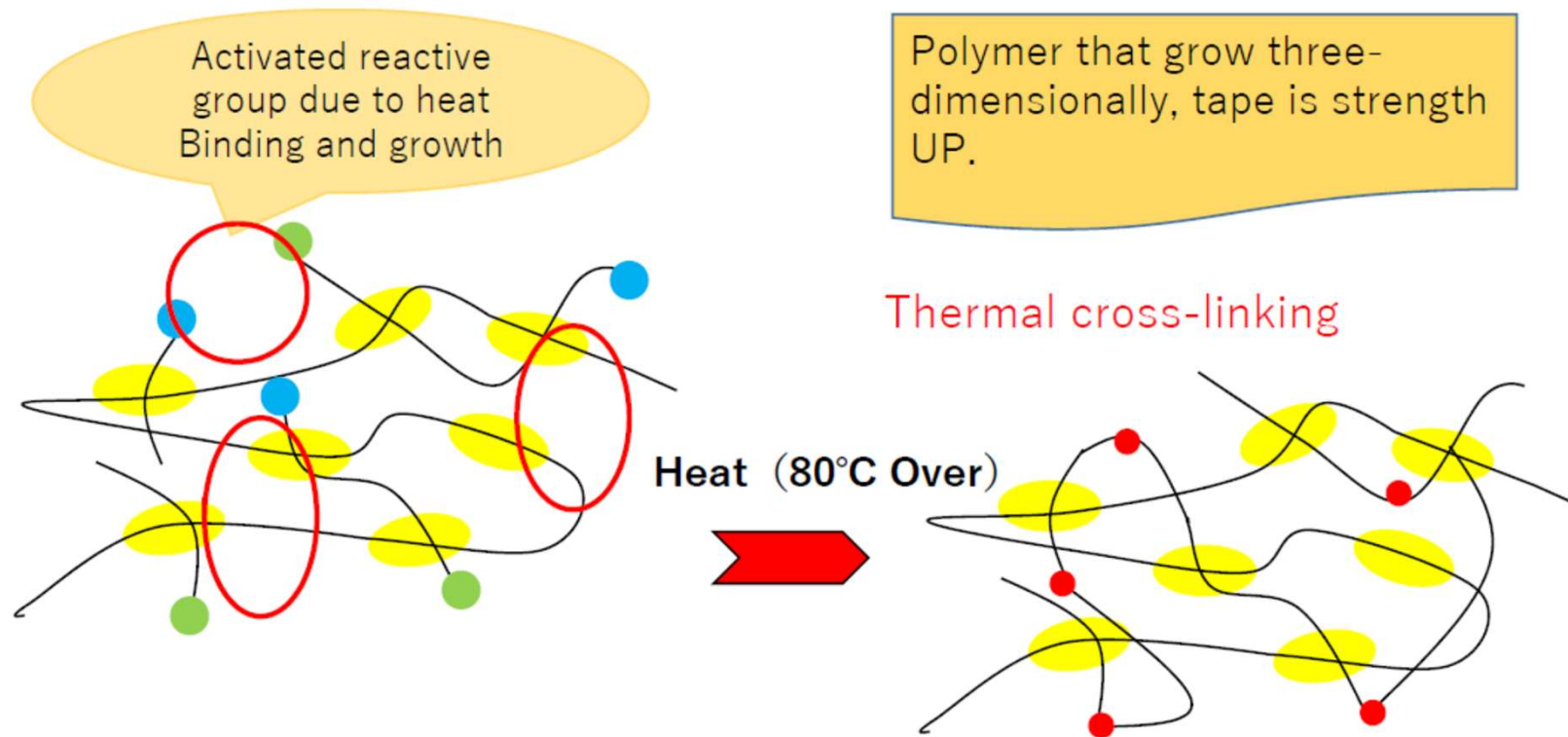
## MGSRB Reactive group mechanism

- MGSRB has a reactive group, curing will proceed at 80 °C or higher.
- At 80 °C or less of temperature is stable, curing does not proceed.
- In a high-temperature environment, it has a high adhesion to various adherends.



# Heat Curing MGSRB

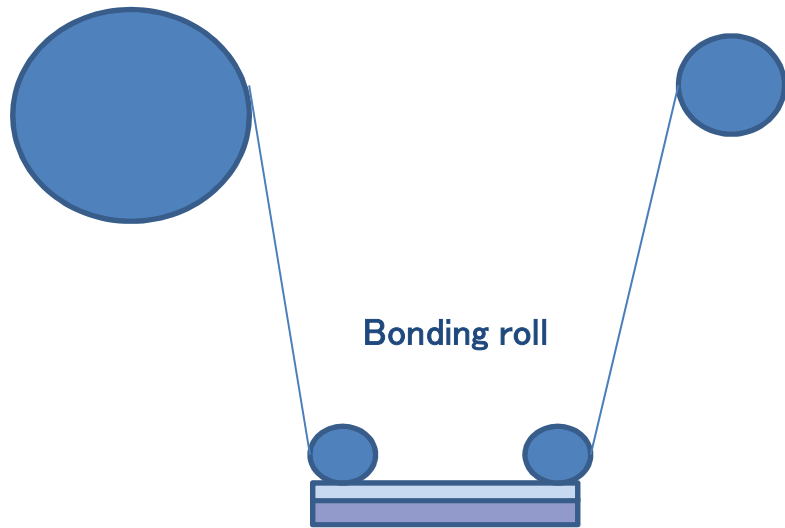
## MGSRB Reactive group mechanism



This product has an acrylic, epoxy, urethane and metal catalyst to polymer alloy or polymerization.

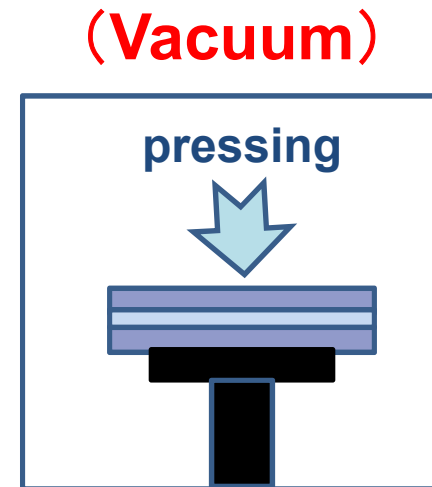
# Bonding condition

## 1) OCA Lamination



Bonding roll condition  
0.3MPa press × 3sec

## 2) Panel Lamination



Vacuum condition  
Vacuum 1,000Pa × 0.3MPa press × 7sec

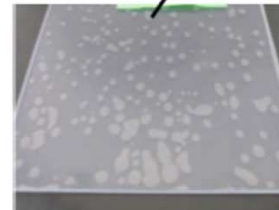
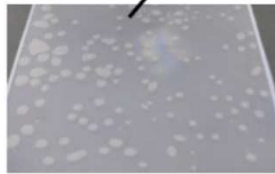
## 3) Autoclave condition

Autoclave treatment for reducing in the delayed bubble  
0.1Mpa ~ 0.5MPa × 80°C ~ 120°C × 15min

# Life data of MGSRB

## ◆ Sheet Life Data

Sheet Storage Condition	1Day		3Days		7Days		14Days	
	80°C	105°C	80°C	105°C	80°C	105°C	80°C	105°C
r.t.(23°C)	○	○	○	○	○	×	×	×
Freezer(<0°C)	○	○	○	○	○	○	○	○
40°C	○	×	×	×	×	×	×	×



**Recommended storage condition : <10°C × 50%RH**

# General physical properties

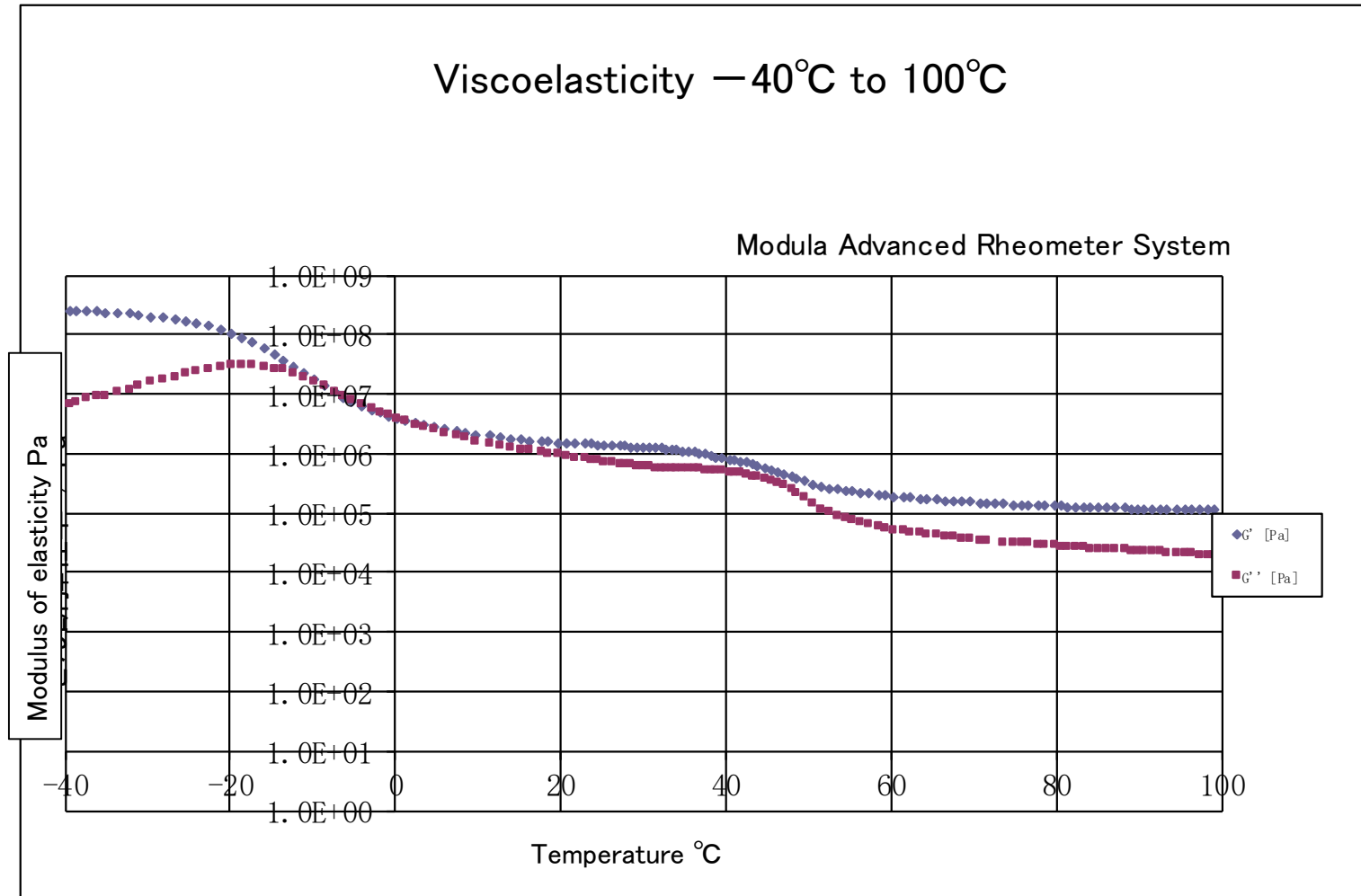
Item		Item	Value	Test conditions
Product		-	MGSRB	-
Component		-	Special acrylic adhesive	-
Characteristic	Optical properties	TT (%)	92% (99%※removed by calculating the interface reflection loss)	(JISZ8722 t0.5, 1mm)
		Refractive index	1.49	(JISK7142)
		Haze [%]	1.0%	(JISK7136 t0.5, 4mm)
		Abbe number	54	(JISK7142)
		Birefringence	$1 \sim 4 \times 10^{-6}$	(JISK7142)
		Color difference	$b^* = 0.2 \sim 0.4$	(ISZ8722 t0.5, 4mm)
	Mechanical strength properties	Shear strength : glass	1.11	(t0.2mm speed10mm/min)
		Shear strength : Polycarbonate	1.46	(t0.2mm speed10mm/min)
		Breaking strength (25°C) [MPa]	0.038	(Dumbbell No. 3 speed10mm/min)
		Growth rate (25°C) [%]	522.1	(Dumbbell No. 3 speed10mm/min)
		Coefficient of thermal expansion (25°C [ppm/°C])	$5.5 \times 10^{-4}$	(5°C/min)
		Hardness	32	(Asker C)
		Moisture vapor transmission rate [cm <sup>3</sup> ·cm/(m <sup>2</sup> ·24hrs·atm)]	56.7 [g/(m <sup>2</sup> ·24h)	(JISK7126 GC、JISZ0208 40°C90% Moisture vapor carbon dioxide)
	Electrical characteristics	Water absorption [wt%]	0.4	(85°C85%)
		$\epsilon_r$ 25°C	3.02	(Frequency 1MHz)
Other	$\tan \delta$ 25°C	0.04	(Frequency 1MHz)	
	Corrosive components	None	(KGK Method)	

Thickness 0.2t

# Viscoelasticity

Specimen : MGSRB

Viscoelasticity —40°C to 100°C



Stable temperature characteristics



## Reliability test ( Polycarbonate plate / Glass)

### Test conditions

Test sample : PC(1.0t) / MGSRB(0.175t) / Glass

Size : 100 × 100 (mm)

Temperature conditions: 105°C × 8h



**Before**



**After**

### Test result

**No bubble**

## Reliability test ( Acrylic plate / Polyester film )

### □ Test conditions

Test sample : PMMA(1.0t) / MGSRB(0.175t) / PET

Size : 100 × 100 (mm)

Temperature conditions: 100°C × 12h



**Before**



**After**

### □ Test result

**No bubble**

# End of presentation

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User is responsible for determining whether the KGK product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a KGK product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a KGK product. Given the variety of factors that can affect the use and performance of a KGK product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the KGK product to determine whether it is fit for a particular purpose and suitable for the user's method of application. KGK make no warranties on above data.

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