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Double-sided tape with acrylic foam Substrate: 300ZGB1200

KGK Chemical Corp.
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KGK Chemical Corporation
Sales Management Headquarters

Contents

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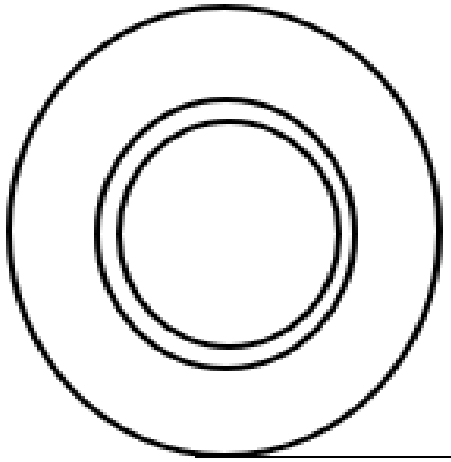
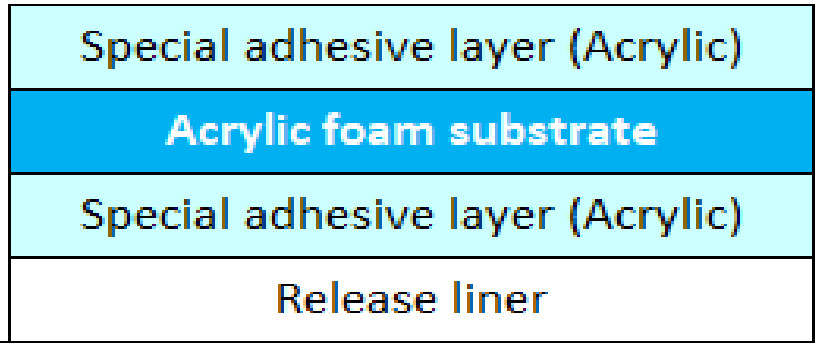
1-1. 300ZGB1200 and its layer structure





Glue layer thickness: 1,200 μ (1.2mm)

Adhesive design of our original product "Molecular Gradient Film Double-coated Adhesive Tape" 300Z series is applied to acrylic foam substrate.

By applying technology from the 300Z series, the tape has robust bonding strength, high watertightness, chemical resistance, and oil resistance.

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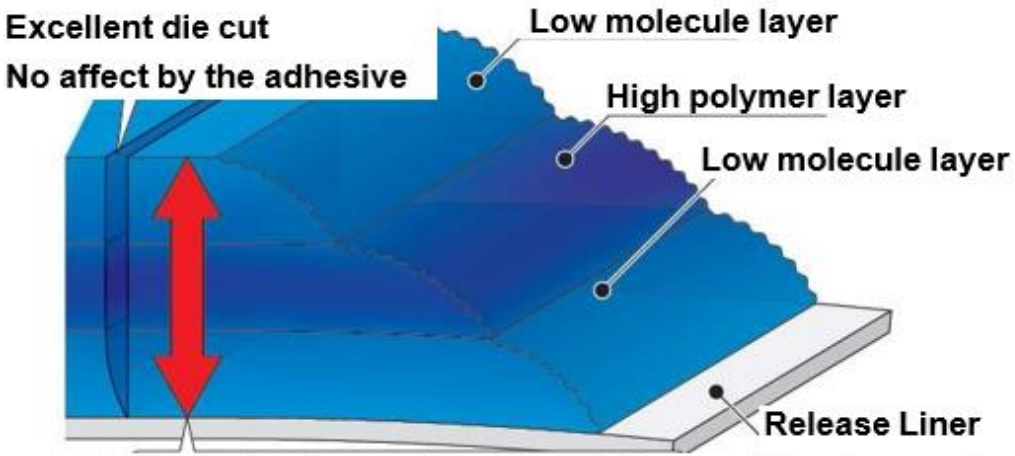
1-2. ① Molecule Gradient Layer Double-sided Tape Z300

By applying a gradation to the molecular weight, the film is fabricated with a three-layer structure of Low molecular weight acrylic adhesive layer, High molecular weight acrylic adhesive layer, and Low molecular weight acrylic adhesive layer.

The entire three-layered tape thickness contributes to bonding of the adherend interface, providing 1.5 to 2.0 times stronger bonding strength as compared to conventional double-coated adhesive tapes.

Structure



Thin design is possible. The thickness of the glue can be utilized to about 1.5 times the adhesive strength compared to competitors.

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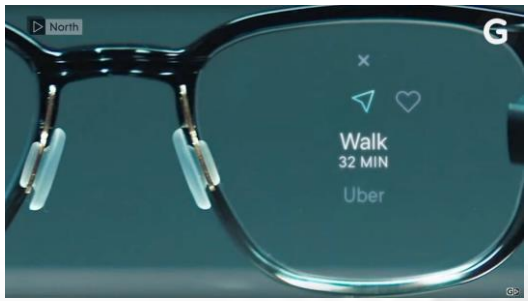
1-2. ② Molecule Gradient Layer Double-sided Tape

Product photo

Product outline

Robust material bonding strength and reliable watertightness up to IPX7. Watertightness is ensured even with a fine process of less than 1 mm thanks to to the substrate-less design.

Track record



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2. 300ZGB1200 Physical characteristic value

■90° Peel strength

Thickness (μm)	90° Peel strength (N/cm)		
	Artificial marble	SUS	Plywood
1200	19.3	36.3	7.5

Test method:

A 10 mm wide sample was bonded to artificial marble, SUS304, and plywood. After backing with 25μm PET, crimped with a 2kg roller, back and forth for two times.
Measured after leaving at room temperature for 1 hour.
Peeled in 90° direction at a tensile speed of 300 mm/min.

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2. 300ZGB1200 Physical characteristic value

■Shear force by temperature

Shear force (MPa)		
−20℃	Room temp. (23℃)	100℃
4.0	1.5	0.5

Test method:

A sample of 10mm x 10mm was bonded to SUS304 and crimped with a 2 kg roller, back and forth for two times.
Measured at each temperature after leaving at room temperature for 1 hour.
Peeled off in shear direction at a tensile speed of 300 mm/min.

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2. 300ZGB1200 Physical characteristic value

■Holding power

Holding power (Displacement distance, mm)			
Room temp.(23℃)		40℃	100℃
500g/cm^2	50g/cm^2	50g/cm^2	50g/cm^2
0	0	0	0

Test method:

A sample of 10mm x 10mm was bonded to SUS304 and crimped with a 2 kg roller, back and forth for two times
After leaving the sample at room temperature for 1 hour, hanged a weight at each temperature and measured the misalignment distance after 24 hours.

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3. 300ZGB1200 Features and recommended applications

Features

(1) Excellent performance not only on metals but also on various types of resins
(2) Excellent adhesive strength even at low and high temperatures
(3) High adhesive strength to difficult-to-bond surfaces such as UV coated surface and polymer polyethylene, etc.
(4) Excellent shock absorption and improved durability
(5) Excellent tracking and anti-repulsion properties

Applications

(1) General adhesion of rating plates, metal plates, plastic plates, etc.
(2) Bonding to various industrial materials
(3) Bonding with various foam materials
(4) Fixing of mobile products such as cellular phones

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3. 300ZGB1200 Features and recommended applications

All Photos herein are for images only.

Various components for built-in kitchens

Fixing drive recorders

Fixing emblems

In-vehicle displays

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4. Supplement data: 300ZGB1200 Comparison with competitors

	Thickness (μm)	90° Peel (N/cm)			Shear force			Holding force in temp. increase	Holding force (misplacement)			
		Artificial Marble	SUS	Plywood	-20℃	Room temp. (23℃)	100℃		Room temp. (23℃)		40℃	100℃
									500g./cm²	50g./cm²	50g./cm²	50g./cm²
300ZGB1200 (KGK)	1200	19.3	36.3	7.5	4.0	1.5	0.5	200 or more	0	0	0	0
Y541***** (S Co.)	1200	18.6	17.7	6.9	3.8	0.8	0.2	156.5	Fell after 1.5 days	0	0.1	1
H7**** (N Co.)	1200	12.1	35.0	3.6	5 or more	2.1	0.6	200 or more	1	0.2	0.2	0.5

- **Peeling strength at 90℃:** Compared to the performance of other two products on each adherend, 300ZGB1200 has higher values on all adherends. Also, 300ZGB1200 shows high adhesion regardless of the adherend.
- **Shear strength:** equivalent to other competitors' products at all temperatures.
- **Holding force in temperature rise:** has high heat resistance.
- **Holding strength:** highest values in all conditions

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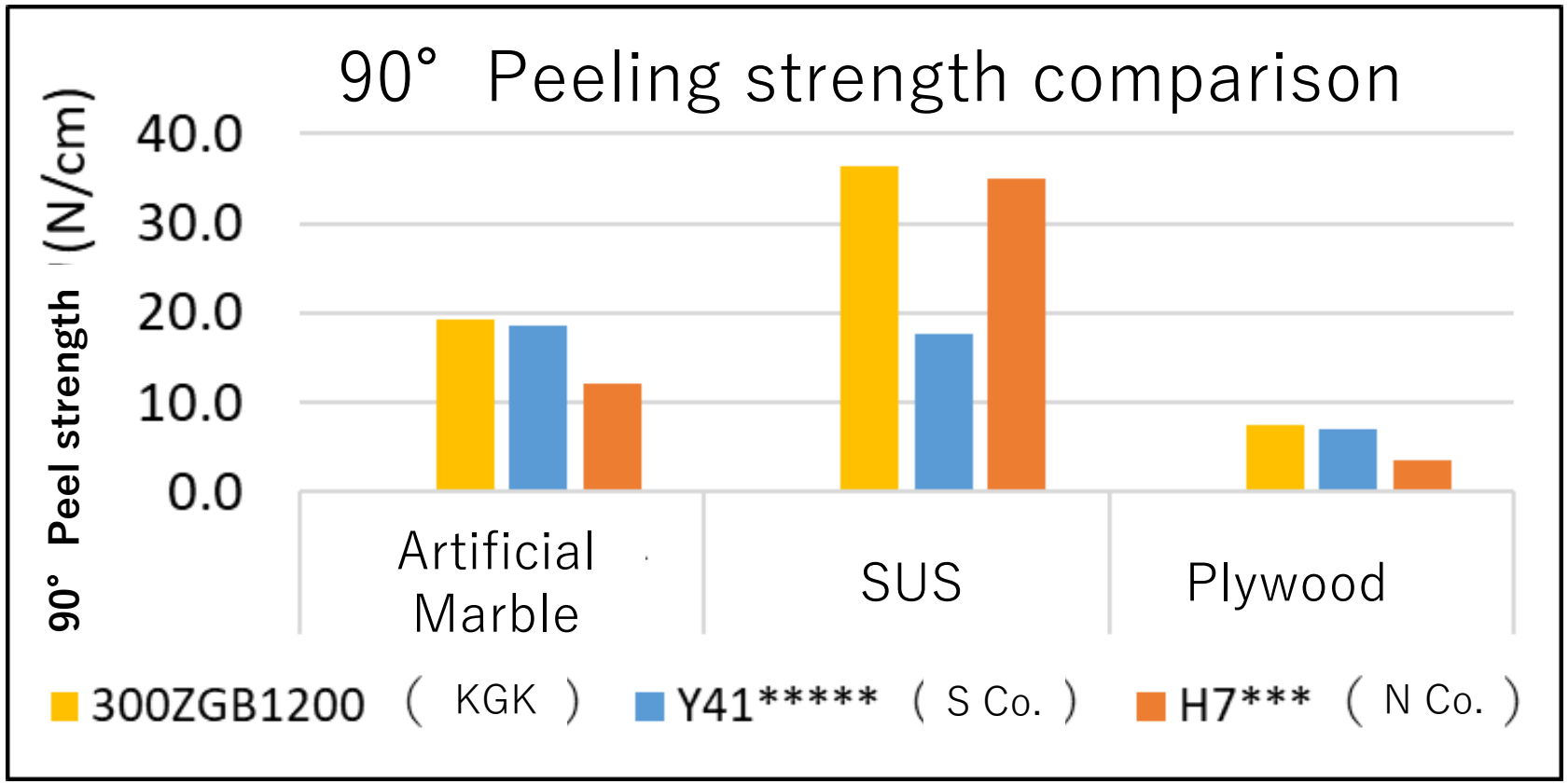
4. Supplement data: 300ZGB1200 Comparison with competitors



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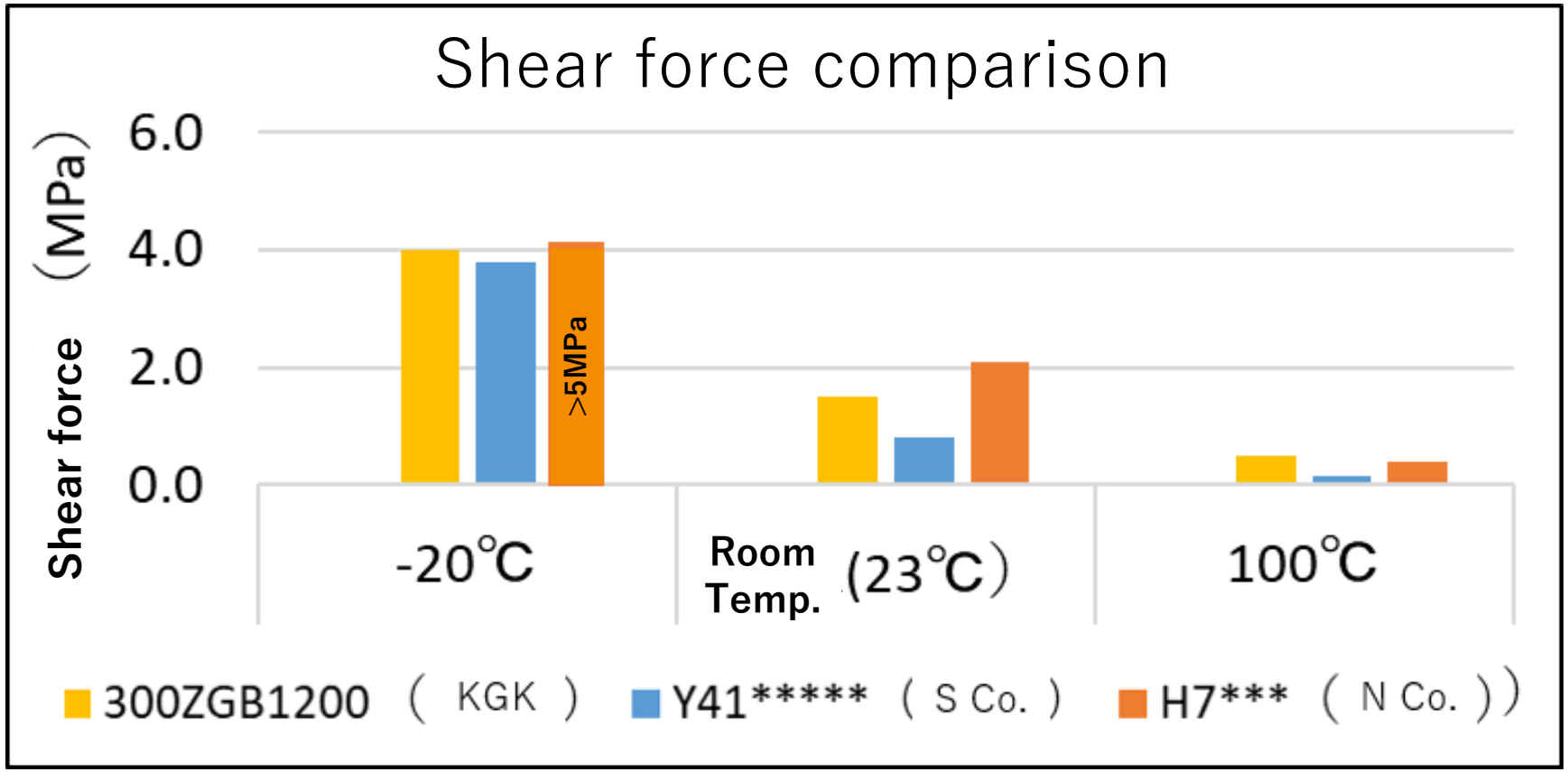

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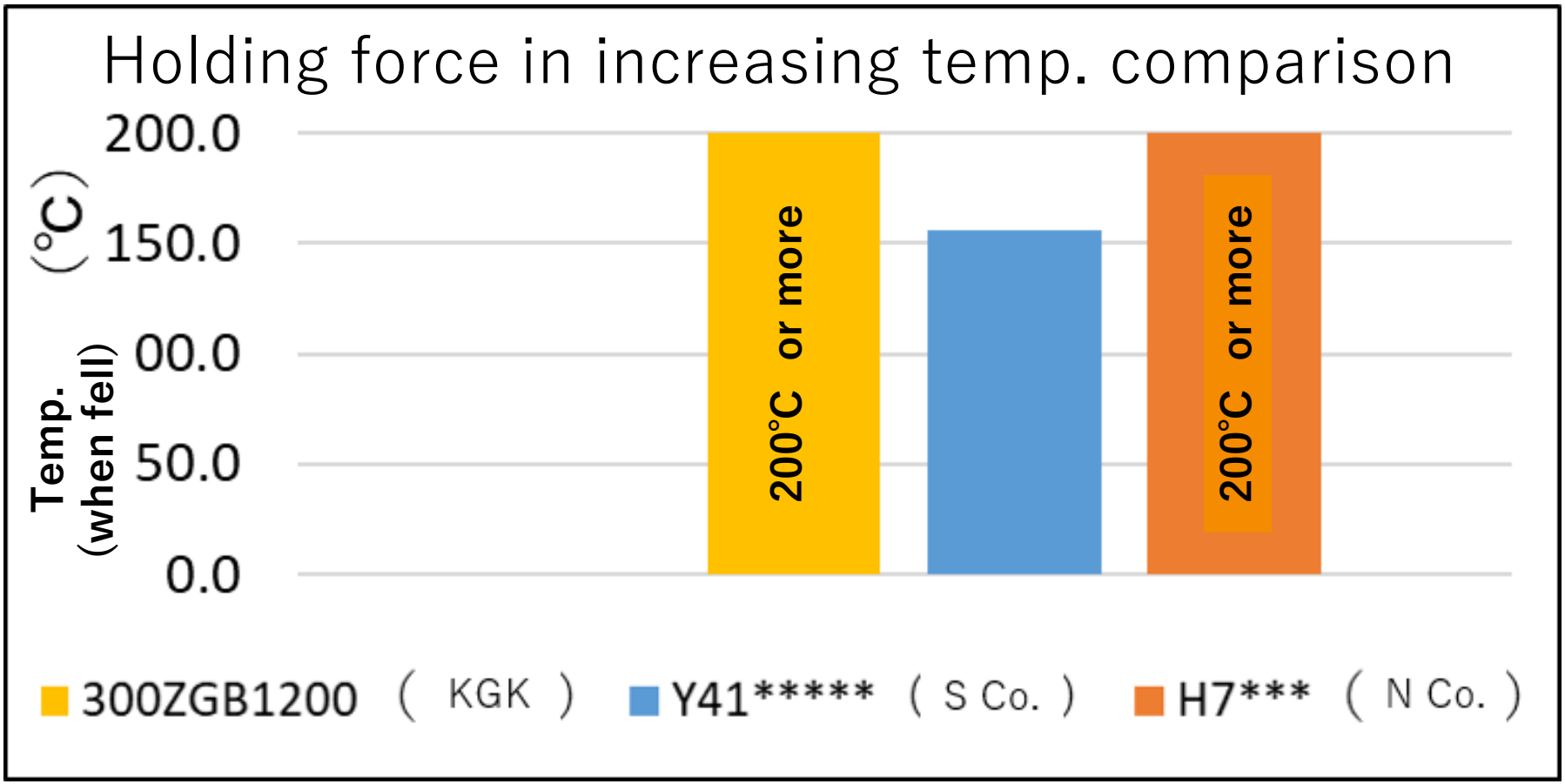

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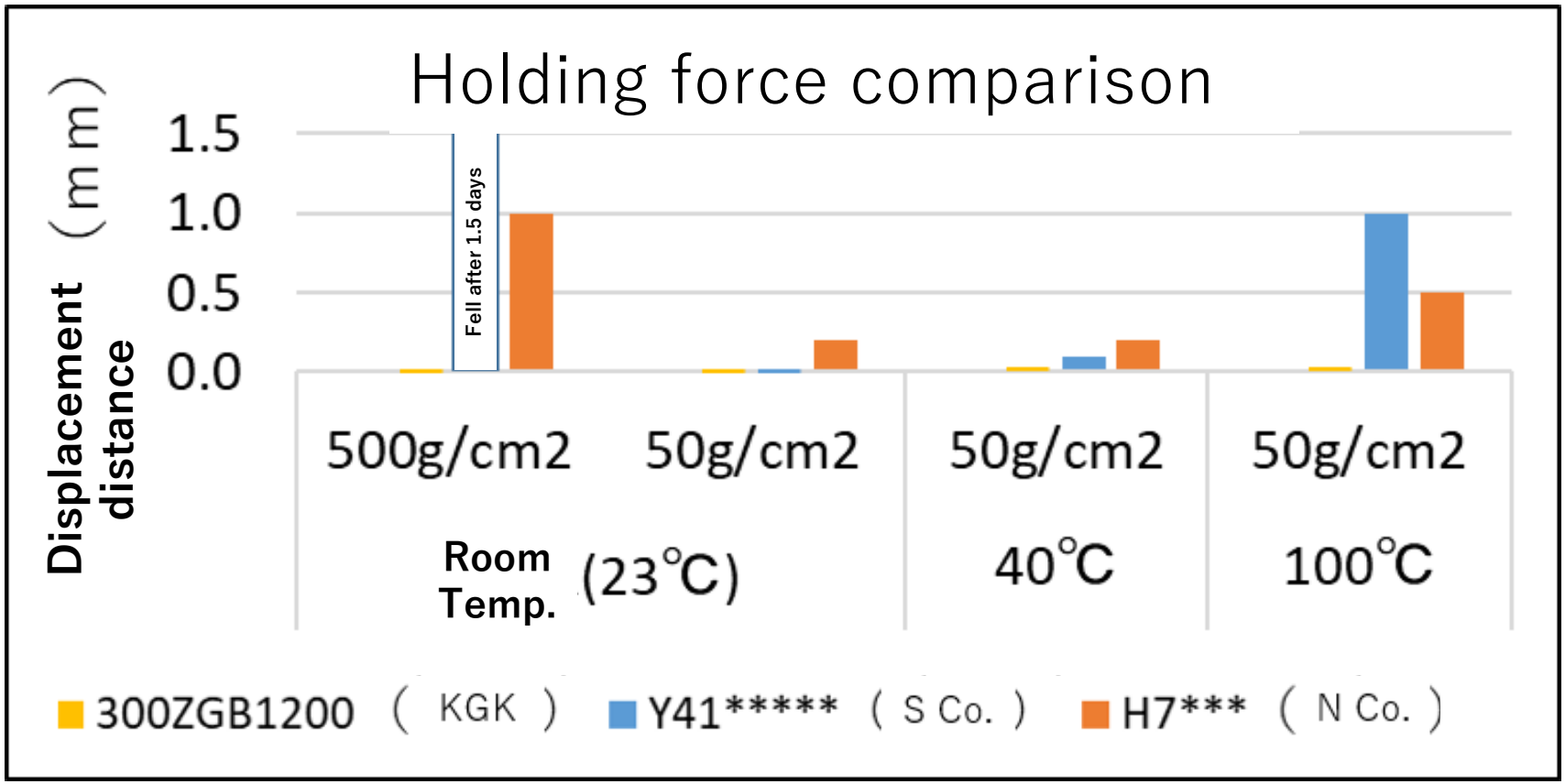

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5. Summary and Conclusion

300ZGB1200 is comparable to and superior to competitors' products in the following four areas: peel strength, shear strength, temperature rise holding strength, and holding strength.

Conclusion

300ZGB1200 is expected to be a highly effective alternative to conventional acrylic foam base double-coated adhesive tapes from major companies.

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End of presentation

User is responsible for determining whether the KGK product fits 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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