

SELF-DRIVING MODE

Innovation for the Future Mobility - SEKISUI Solution

# Sekisui Mobility Solution



Safety(ADAS)



Environment



Design/Comfortable

CONTACT

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Adhesion

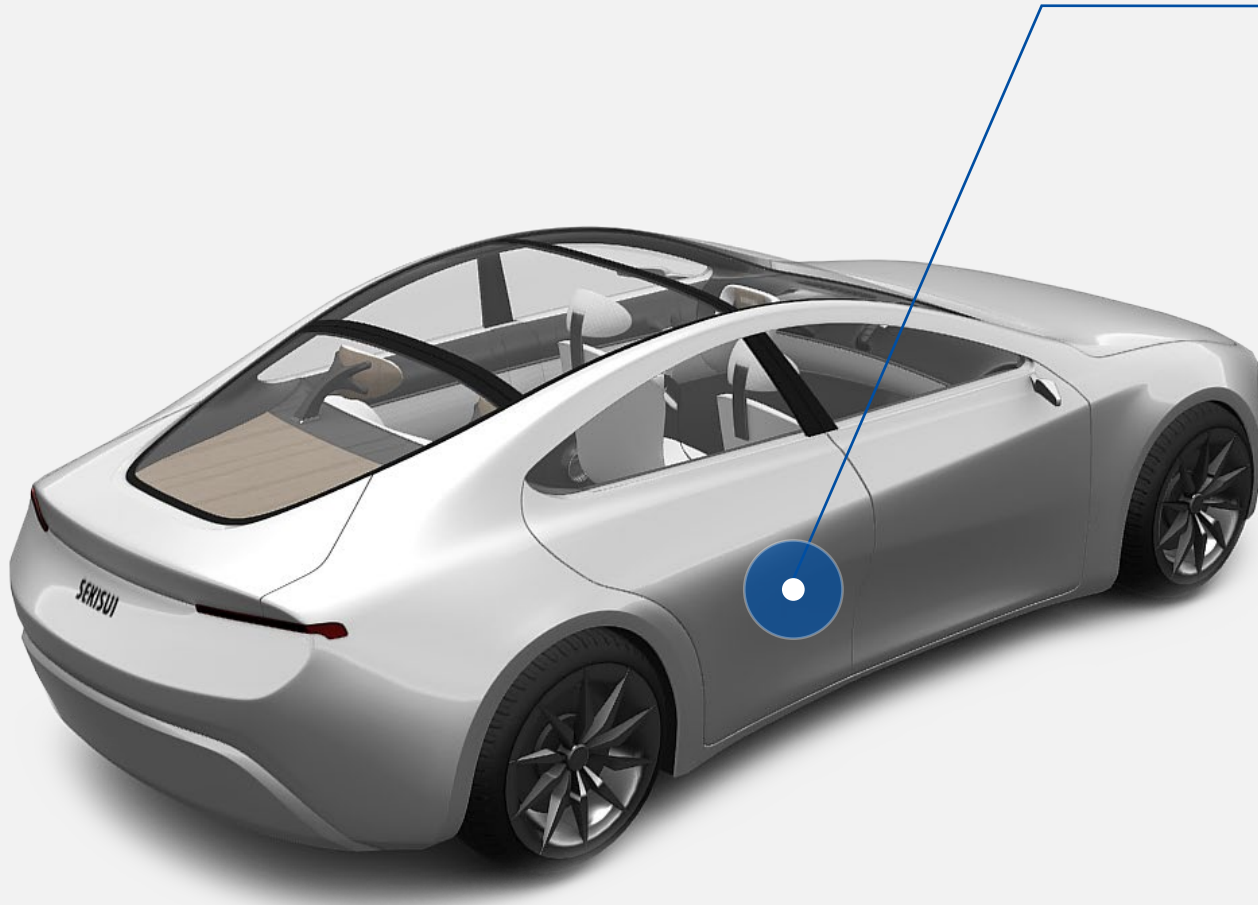
# High heat-resistant tape 5503HT & 5505HR

Safety(ADAS)

Environment

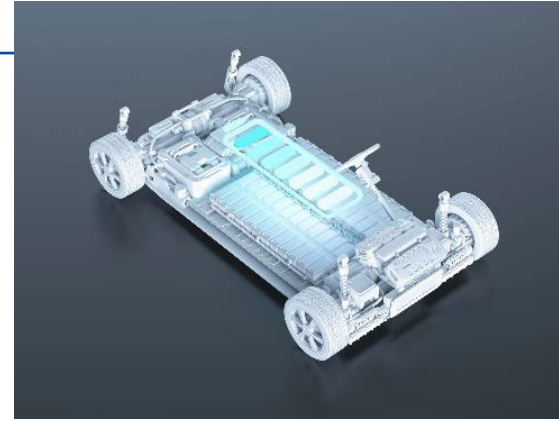
Design/Comfortable

Double-faced tape with heat resistance and low VOC



Potential applications :

For fixing heaters, heat source components and substitute for silicone adhesive



\*Product image for illustration purposes only.

Product



5505HR



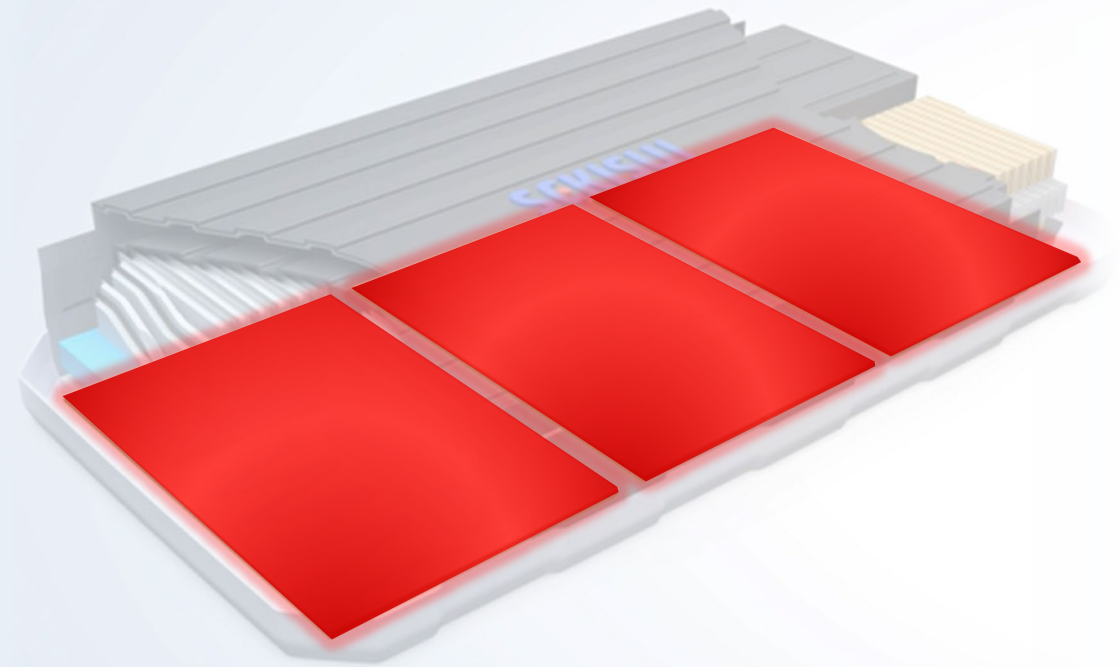
5503HT



## Challenge

### Thermal durability of the product fixing around a heat source.

As the size and weight of automotive electronic components are becoming increasingly compact and lightweight to achieve lower fuel consumption and EVs in automobiles, the heat generation density of the components themselves is increasing, creating a need for higher heat resistance in the adhesive tapes that hold them in place.





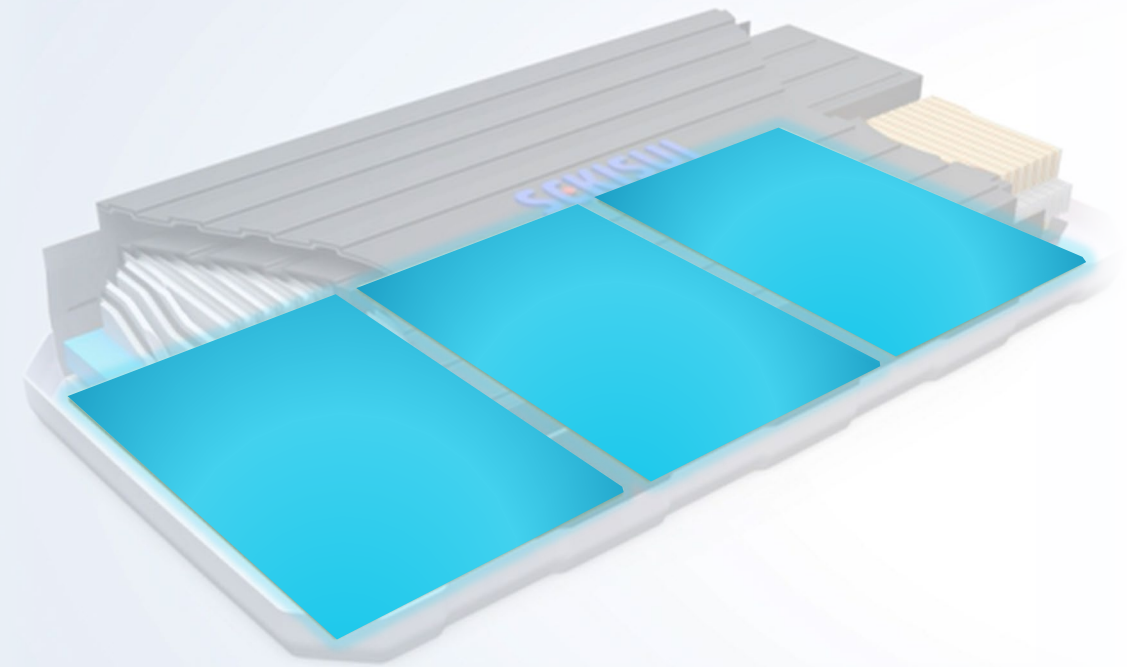
## Solution

### Excellent heat resistance tape with low VOC

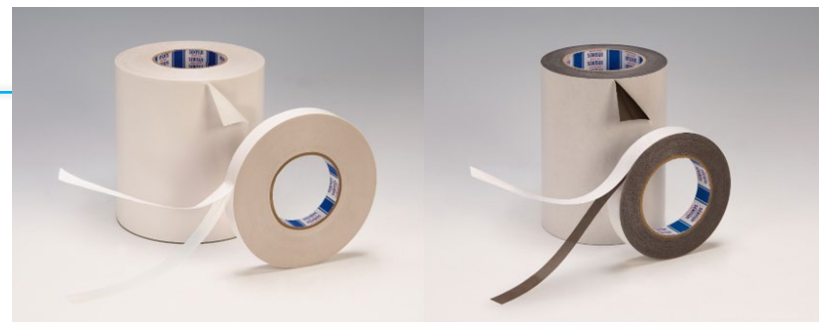
High heat-resistant tapes are for attaching automobile interior components, featuring heat resistance up to 180°C and reduced VOC (reduced odor) with our proprietary compounding technology.

This adhesive maintains some level of softness at room temperature, while keeping the firmness when exposed to high temperatures, making it ideal for attaching materials related to electronic components, which will be increasingly in demand for electric vehicles (EVs) going forward.

Besides, silicone adhesives are currently often used in high temperature areas and may contain 13 VOC substances. Our "High heat-resistant transfer tape 5503HT • 5505HR" can be used as an alternative material.







\*Product image for illustration purposes only.

## Technical overview

feature  
01

### Heat resistance up to 180 °C by our proprietary technology

Retains adhesiveness at high temperatures with our proprietary precision blending technology

Normally, when heated, it softens and loses adhesiveness, but our proprietary technology overcomes this problem.  
Can be used on high heat parts such as heaters.

feature  
03

### Heat-resistant enough not to cause misalignment even at 180°C

Normally, thinner adhesion lowers adhesion, but our proprietary technology has achieved both adhesion to rough surfaces and heat resistance at a thinness of 30 μm.

We expect that this product will be used in future EV models.



feature  
02

### Low-VOC has less impact for environment and humans

Low VOC (odor) for a comfortable interior

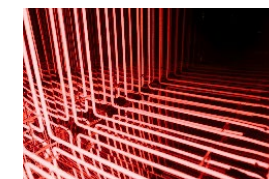
VOC (Volatile Organic Compounds) have been significantly reduced to one-fifth of conventional products.



feature  
04

### Adhesion to rough surfaces under high temperature

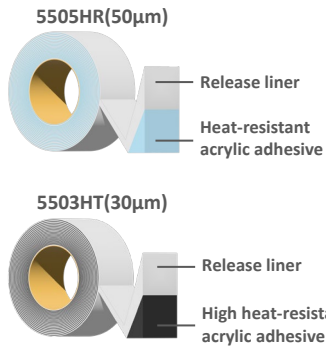
It adheres to fabrics and foams, which are generally difficult to adhere to due to their uneven surfaces, and retains its adhesive strength even under high temperatures.





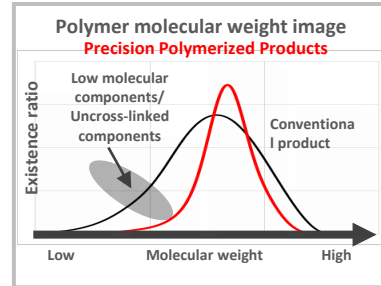
## Technical details

## feature 01 Heat resistance up to 180°C by our proprietary technology

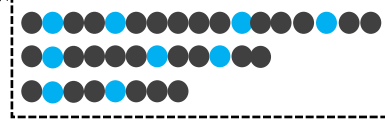


## Precision polymerization technology

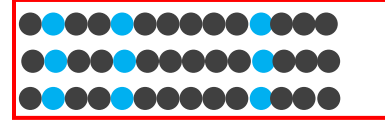
- Acrylic base monomer
- Acrylic monomer containing cross-linking group



## Conventional



## Fine polymerization



## Polymer features

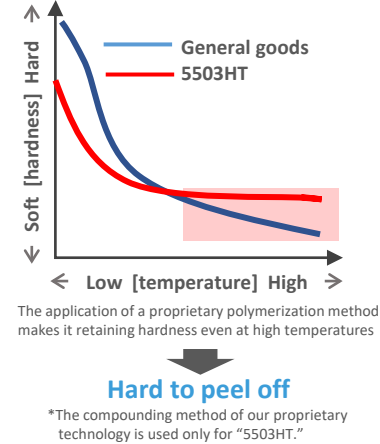
- Low molecular weight components.
- Uniform cross-linking

## Tape features

- Peeling resistance
- Heat resistance

Proprietary polymerization method improves tape performance throughout the polymer

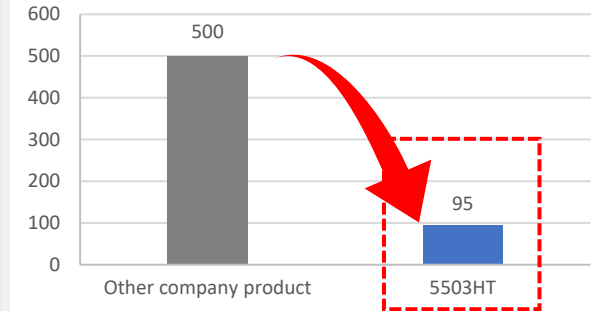
## Comparison of the hardness of adhesives



## feature 02 Low-VOC has less impact for environment and humans

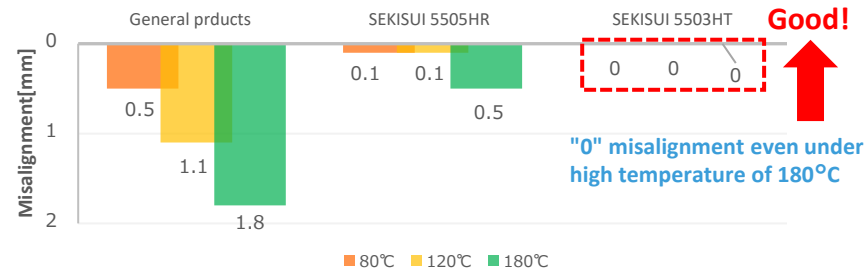
The total VOC content is superior to that of competitors' products. This tape is easy to use for a comfortable interior

## Total VOCs[VDA Standard]

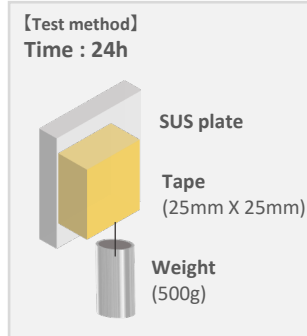


## feature 03 Heat-resistant enough not to cause misalignment even at 180°C

## Holding power

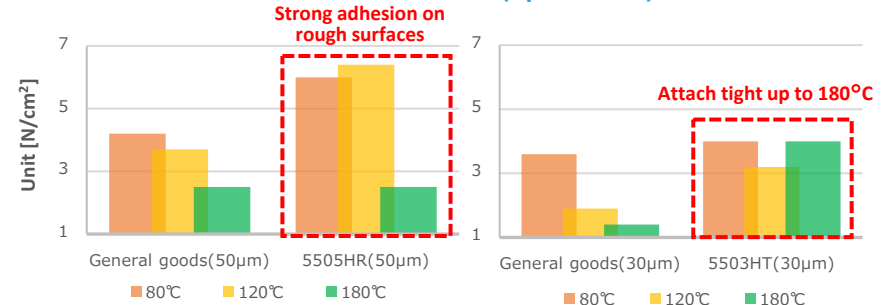


\*The above data are measured values, not guaranteed ones.



## feature 04 Adhesion to rough surfaces under high temperature

## PU foam shear test (by thickness)



→ Attach to rough surfaces under high temperature

