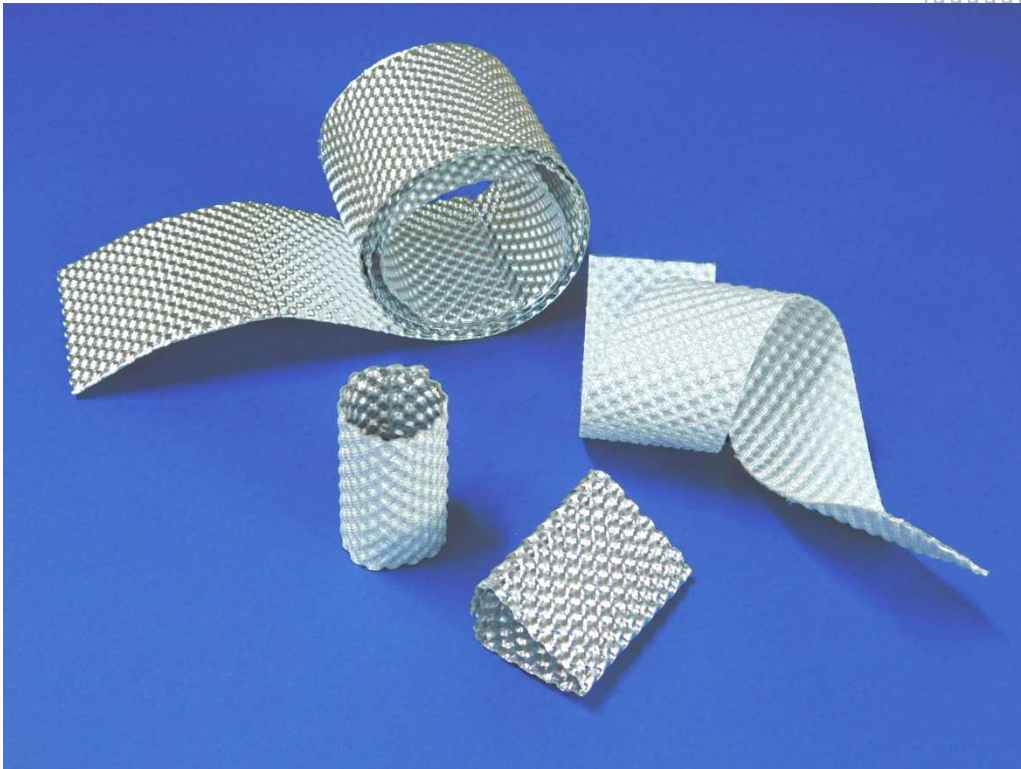


# Sheet-flex H

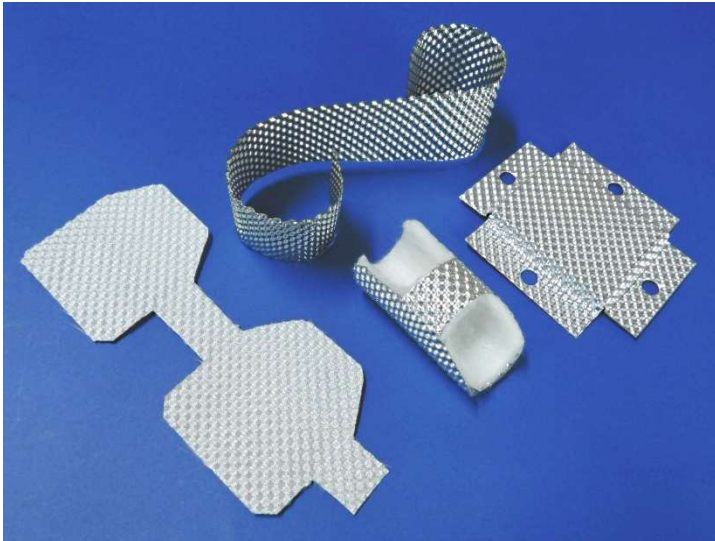
A lightweight flexible sheet with excellent heat insulation, heat resistance, and heat retention.



**OHTSUKA**

# Sheet-Flex H

A lightweight flexible sheet with excellent heat insulation, heat resistance, and heat retention.



## ★ What is Sheet-Flex ?

We produce many unique products.

**O-FLEX TUBE** (Flexible tube for heat resistance, etc.)

**EMC TUBE** (EMC Shielding tube)

**SFD** (Sound attenuation flexible duct)

etc...

**Sheet-flex** was developed based on our original product technology , it is a flexible sheet that can be formed freely instead of being cylindrical!

A flexible sheet that can be used for various purposes such as heat insulation, heat retention, sound insulation, abrasion resistance, and electromagnetic wave shielding, depending on the combination of materials.

This is the birth of a flexible sheet that can be used in a variety of ways to meet customer needs.

★Patented.

## ★ What is Sheet-Flex H ?...

The first stage of the Sheet-Flex series.

It is a sheet-shaped product that maintains the basic performance of O-FLEX TUBE, which is excellent in heat resistance, heat insulation, and heat retention, while considering workability.

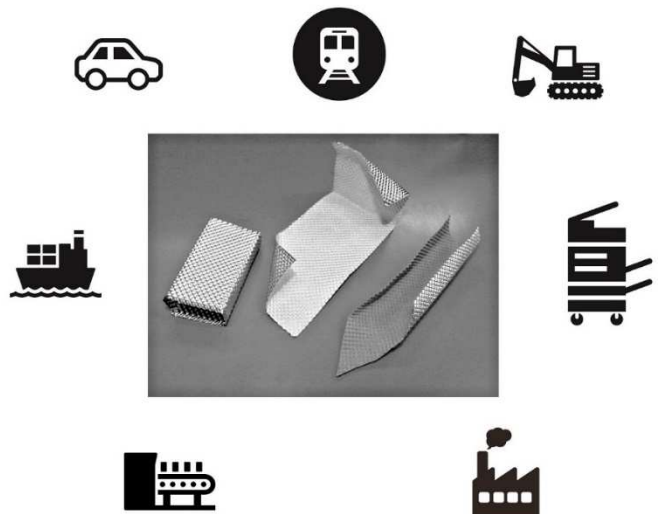
### ◆ Main applications

#### Protects against heat damage

(Heat resistance, cold resistance, heat insulation, heat retention, etc.)

- Automobile
- Railway
- Construction equipment
- Vessel
- Industrial machinery
- Electrical equipment
- Various plant facilities

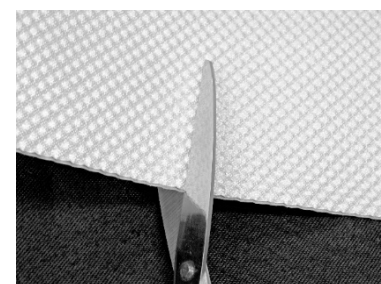
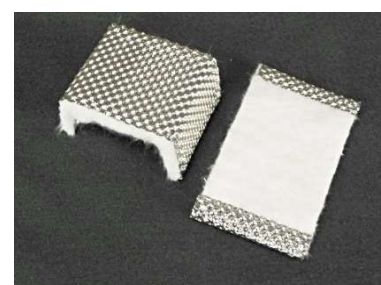
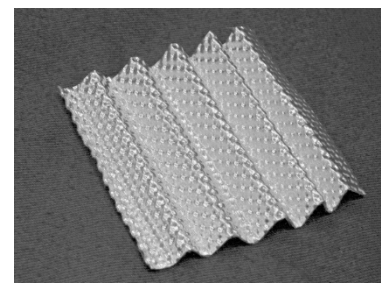
#### Simple electromagnetic wave shield



The possibilities are endless.

## ★ Feature

1. Flexibility is realized by the special concave and convex shape, and it is easy to assemble because it bends freely.
2. By using the same material as O-FLEX TUBE, which has been proven for many years, it exhibits excellent heat insulation performance and heat retention performance.
3. Resistant to heat, cold, water, oil, and chemicals, and can be used in a variety of environments.
4. Can also be used as a simple electromagnetic shielding countermeasure.
5. Lightweight
6. Flame retardant and self-extinguishing  
Compliant with JIS D 1201 (FMVSS302)  
Corresponding to the combustibility test of railway vehicle materials(Japan)
7. Contributes to high heat insulation and heat retention by combining with glass-wool and silica-mats.
8. By changing the material composition, it has the potential to apply to various applications such as wear resistance and noise reduction.
9. It can be attached to various shapes.  
(Sheet-Flex H can be cut into the shape of the object to be protected.)



## ★ Configurations

Item	SF-GAA	SF-ACA	SF-ACAG	SF-GACAG	SF-S
Component	<ul style="list-style-type: none"> <li>Aluminum</li> <li>Glass cloth</li> </ul>	<ul style="list-style-type: none"> <li>Aluminum</li> <li>Heat resistance paper</li> </ul>	<ul style="list-style-type: none"> <li>Glass cloth</li> <li>Aluminum</li> <li>Heat resistance paper</li> </ul>	<ul style="list-style-type: none"> <li>Glass cloth</li> <li>Aluminum</li> <li>Heat resistance paper</li> </ul>	<ul style="list-style-type: none"> <li>Stainless Steel</li> </ul>
Main use	<ul style="list-style-type: none"> <li>• Fire resistance</li> <li>• Insulation and Heat retention</li> <li>• Simple EMC shield</li> </ul>	<ul style="list-style-type: none"> <li>• Insulation and Heat retention</li> <li>• Simple EMC shield</li> </ul>	<ul style="list-style-type: none"> <li>• Insulation and Heat retention</li> </ul>	<ul style="list-style-type: none"> <li>• Fire resistance</li> <li>• Insulation and Heat retention</li> </ul>	<ul style="list-style-type: none"> <li>• Fire resistance</li> <li>• Damage prevention</li> <li>• Insulation and Heat retention</li> </ul>

- Various configurations are possible. Additional configurations possible not listed please feel free to contact us.
- The standard size is w220 x L1,000 (mm) (as of December 2021). For longer lengths, please contact us.
- Expansion of lineup, expansion of manufacturing range, etc. in development. Please stay tuned!

## Sheet-Flex H Specification Comparison

Item		SF-GAA	SF-ACA	SF-ACAG	SF-GACAG	SF-S	
I. Structure	Width(W)	W ± 5 mm					
	Length(L)	L ± 5 mm					
	Product Thickness	1.45 ± 0.2 mm				1.2 ± 0.2 mm	
	Cross-sectional Structure	Special uneven structure (patented)					
II. Standard size		W 220× L 1,000 mm					
III. Manufacturing range	Width(W)	W10~W220 mm					
	Length(L)	L40~L1,000 mm					
IV. Approximate mass		425 g/m <sup>2</sup>	475 g/m <sup>2</sup>	592 g/m <sup>2</sup>	700 g/m <sup>2</sup>	358 g/m <sup>2</sup>	
V. Performance	Normal temperature range		- 40~200°C	- 40~200°C	- 40~250°C	- 40~250°C	- 40~650°C
	Force required for one bend ※1		Over 7N	Over 13N	Over 15N	Over 23N	Over 2N
	Tensile strength ※2		Over 100N	Over 50N	Over 150N	Over 200N	Over 150N
	Thermal insulation effect ※3	Hot air method	Side A:48°C	57°C	Side A:53°C	62°C	42°C
			Side G:64°C		Side G:68°C		
	Radiant heat method	Side A:77°C	75°C	Side A:76°C	51°C	54°C	
		Side G:49°C		Side G:51°C			
Combustion performance	JIS D 1201 (FMVSS302)	Self-extinguishing					
	Combustibility test for railway vehicle materials (JAPAN)	Test No. 2020-785K	Test No. 2020-787K	/	/	/	
	Test No. 2020-786K						
VI. Environmentally hazardous substances		Conforms to RoHS2.0. Contains no REACH SVHC. (* Based on when this document was created.)					
VII. Notes		<ul style="list-style-type: none"> <li>• For cutouts other than rectangular shape by straight line cutting, please contact us.</li> <li>• Excessive repeated bending and stretching is not recommended as it may cause damage.</li> <li>• Since the heat insulating property varies depending on the size and conditions, it is not a guaranteed value, but a reference value for selection.</li> <li>• Store in a flat place with no protrusions, away from rain, wind and direct sunlight, avoiding water and dust.</li> <li>• Specifications and appearance are subject to change without notice.</li> </ul>					

※1 Force required for one bend : Maximum load required to bend a sample of W50×L100 to 90 degrees (under normal conditions)

※2 Tensile strength : Maximum strength when a W15 x L120 dumbbell test piece breaks (under normal conditions)

※3 Thermal insulation effect : When the heat source temperature is 200°C and the distance to the protector surface is 24 mm



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