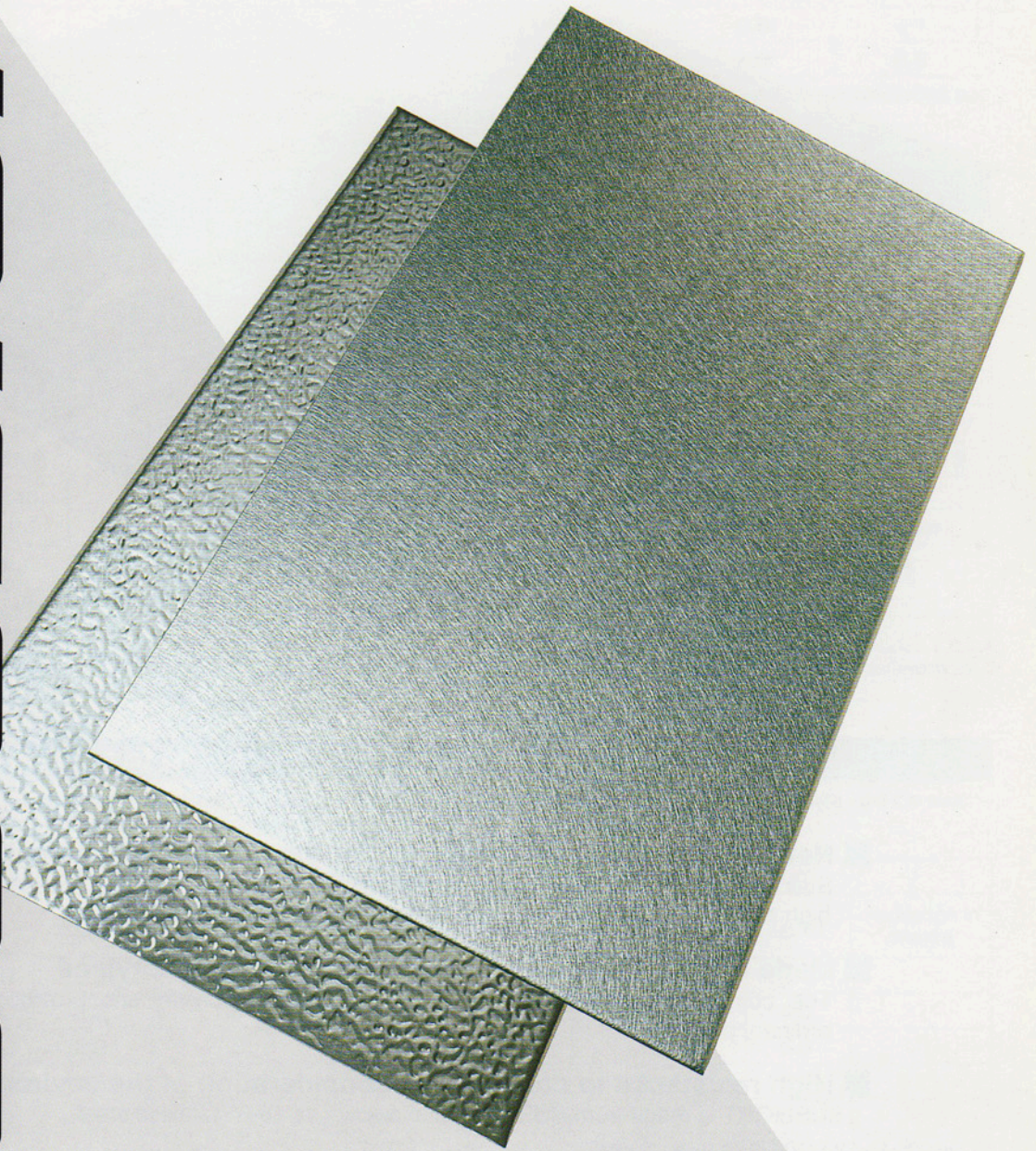


Super-light Stainless steel Composite Panel

SUSLIGHT

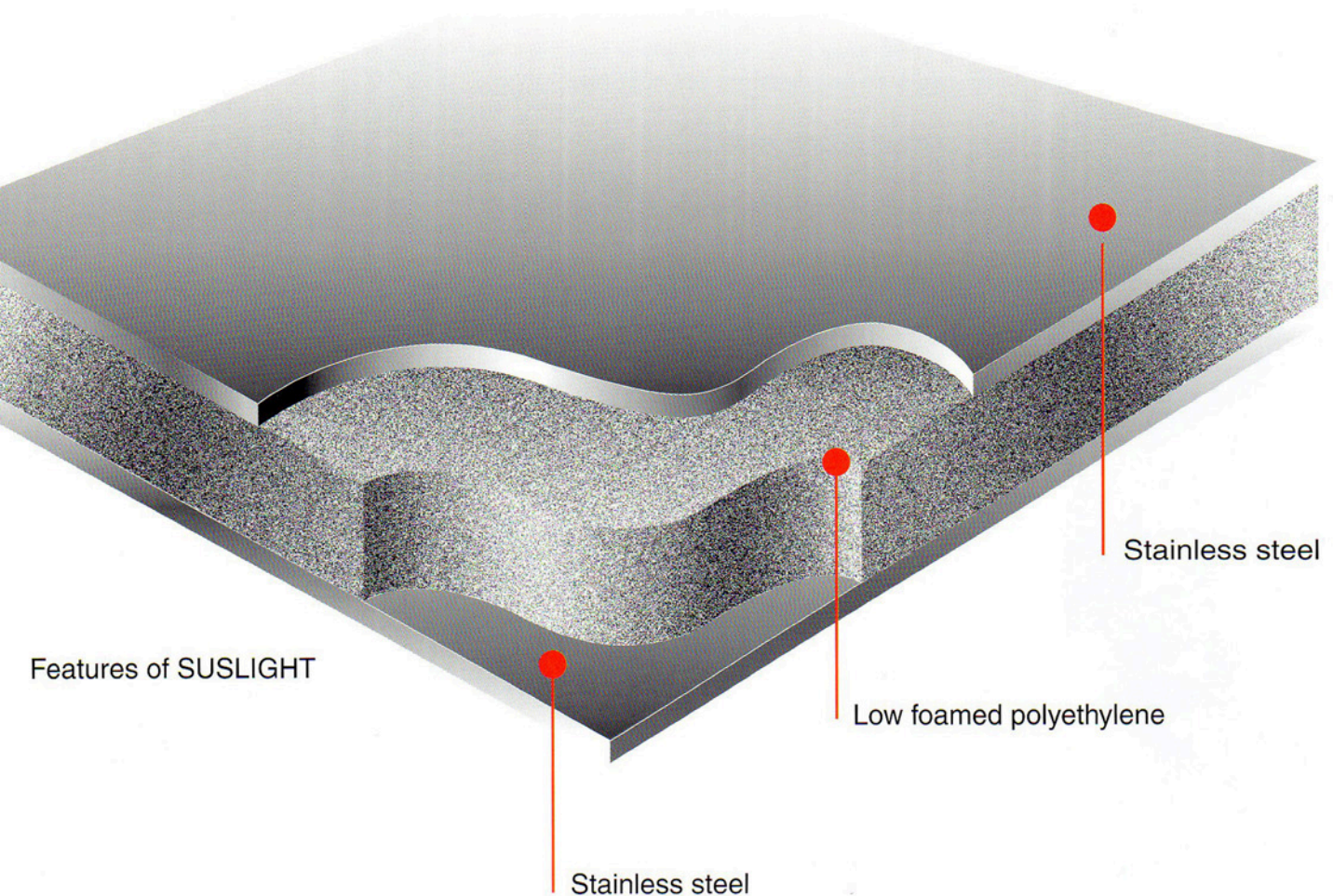
SUSLIGHT



SANKYO UNITE INDUSTRY CO., LTD.

Amazingly light for stainless steel!

SUSLIGHT is a Super-light Stainless steel Composite Panel made by layering together plastic sheets and metal made possible by a production technology using continuous production lines



■ **New Composite Panel made to offer the most in functionally**

Stainless steel has three times the elasticity of aluminum, and it has both the high elongation and high rigidity required for a variety of different types of machining.

■ **Made from stainless steel and low foamed polyethylene**

The composition of stainless steel and low foamed polyethylene provides the same lightness as ordinary products.

■ **High resistance to corrosion in consideration of the environment**

SUSLIGHT is made from SUS-304, also known as 18-8 stainless steel.

■ **Good operation and ecologically sound design made possible by lightness**

With a specific gravity of 1.03 for 4-millimeter-thickness composite panel, SUSLIGHT is incredibly light for stainless steel.

■ **Isolated bubbles and low foamed polyethylene with excellent characteristics**

Unlike ordinary sponge-form bubbles, isolated bubbles consist of globular bubbles which each exist independently of the other. This prevents water osmosis, makes it difficult for the structure to collapse, and provides a continued high level of stiffness without damage from stress.

The secret lies in the isolated bubbles!

SUSLIGHT is available in a wide range of shapes and styles!

Depending on the application, the surface of SUSLIGHT may be polished into a mirror surface, embossed, etched, or decorated in a variety of other ways.

The special characteristics of low foamed polyethylene have also made it possible to bend SUSLIGHT without changing its shape or thickness.

Examples of surface and machine processing

Embossing

Hair-line finish

Mirror polishing

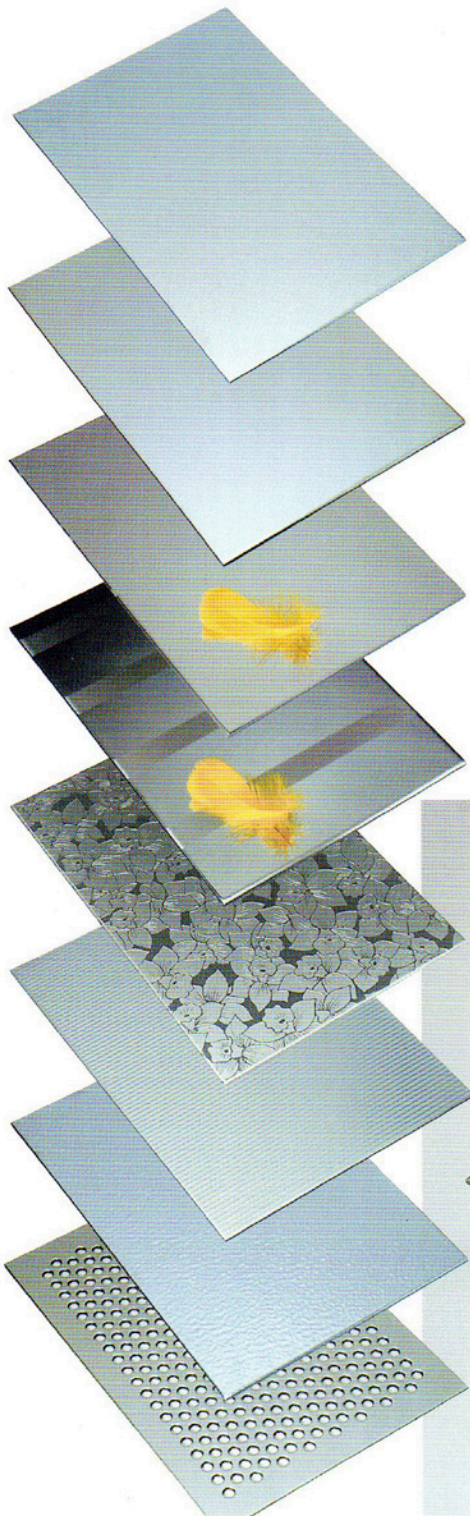
Vibration engraving and Sandblast

Chemical-Etching

Punching

Bending processing

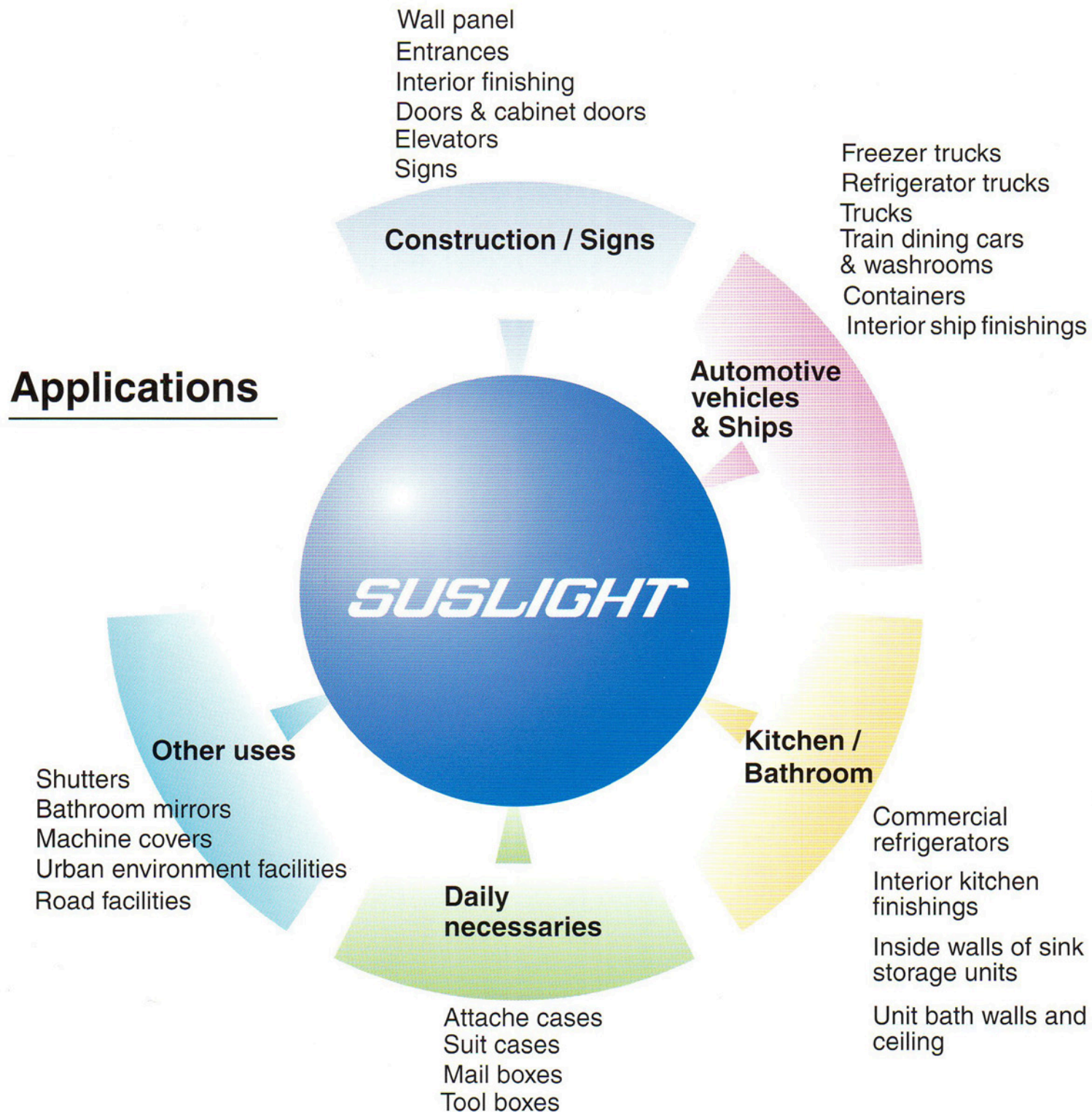
Drawing processing



■ May be used in a wide variety of applications

SUSLIGHT provides all the ordinary characteristics of stainless steel while providing improved ease of use made possible by its superior Lightness.

SUSLIGHT is perfect for use as an interior or exterior finishing material, and its surface may be processed in a wide variety of different ways as a processed product, thus making it a miraculous product which may be used as an interior material and in a wide variety of other applications



Product specifications

Item	Type	#1210	#1510	#2010	#3010	#4010
Total thickness	mm	1.2	1.5	2.0	3.0	4.0
Specific gravity	—	1.95	1.67	1.41	1.16	1.03
Width	mm	914				
Length	mm	1820				
Weight	kg/m ²	2.3	2.5	2.9	3.5	4.1
	kg/sheet	3.8	4.2	4.8	5.8	6.8

Each brand includes two different types of products: Bright-Annealing stainless steel(BA)designed for easier processing and High-Tension stainless steel(HT).(Example of order panel: #1210-HT or #1210-BA)
Please contact us for products of other than standard length.

Physical properties

Item	Type	#1210		#1510		#2010		#3010		#4010	
		BA	HT	BA	HT	BA	HT	BA	HT	BA	HT
Tensile strength	MPa	137	284	110	231	88	176	59	118	49	88
	kgf/mm ²	14	29	11	24	9	18	6	12	5	9
Elongation	%	50	10	50	10	50	10	50	10	50	10
Bending strength	MPa	157	284	127	225	108	167	88	157	69	127
	kgf/mm ²	16	29	13	23	11	17	9	16	7	13
Bending modulus	GPa	82		68		53		37		28	
	kgf/mm ²	8346		6928		5397		3744		2874	
Thermal conductivity	W/m·K	0.12~0.13									
	Kcal/m·h·℃	0.10~0.11									
Deformation temperature	℃	90~95									

The above figures are taken from SANKYO UNITE INDUSTRY CO.,LTD. measurements, and are not to be interpreted as represented guaranteed values.

Comparison of weight

SUSLIGHT is one-third to one-fourth the weight of ordinary stainless steel of the same rigidity per unit area, and it is also one-half to two-thirds the weight of comparable aluminum.

SUSLIGHT		stainless steel			aluminum		
Type	kg/m ²	Equivalent rigidity Thickness(mm)	kg/m ²	Reduction in Weight	Equivalent rigidity Thickness(mm)	kg/m ²	Reduction in Weight
#1210	2.3	0.90	7.2	68%	1.26	3.4	32%
#1510	2.5	1.06	8.4	70%	1.48	4.0	37%
#2010	2.9	1.30	10.3	72%	1.82	5.0	42%
#3010	3.5	1.72	13.6	74%	2.41	6.6	47%
#4010	4.1	2.11	16.7	75%	2.95	8.0	49%

Specific gravity:SUS-304=7.93, AL-3004=2.72

Press formability

SUSLIGHT Type	Erichsen value
#2010 - BA	11 mm
#3010 - BA	10 mm
#4010 - BA	9 mm

SUSLIGHT BA has an elongation 50 percent, thus making it extremely easy to work with.
SUSLIGHT BA is resistant to cracking even when bent at a radius of 0mm at an angle 180°.
Even when bent, SUSLIGHT BA does not suffer from surface damage.
Hole punchability is such that internal burr tends not to occur the nearer to a clearance value of 0 percent.

Cautions to be observed in the handling of SUSLIGHT

1. Placing SUSLIGHT sideways or vertically on a palette may result in warping which would result in a loss of the flatness of the surface, and SUSLIGHT should accordingly always be placed flat on a palette or similar surface.
2. Since the edges of SUSLIGHT panel are not covered with any protective material, it should never be handled or carried with bare hands. Also always be sure to allow sufficient space for working or for placing SUSLIGHT panels down to protect the edges.
3. Stacking of SUSLIGHT one over the other while filings(i.e., plastic filings) are attached to the surface may cause depressions to be formed in the surface, and care should be accordingly taken to avoid doing so.
4. The protective film on the surface of SUSLIGHT panels should be remove as soon as possible after installation.

Protective film deteriorates after long periods of use, and failing to remove the protective film promptly may result in film adhesive remaining on the panels or in it becoming difficult to remove the protective film.

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