



# SANDWICH PANEL BONDING BUILDING FOR THE FUTURE

**BUILDING TRUST**



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Designers, specifiers, manufacturers and users of adhesively bonded building components are continually improving product performances, such as fire protection, noise, energy efficiency and sustainability. At the same time, building component manufacturers require increasingly efficient and cost effective production. Sika is committed to supporting you achieve these goals with a range of bonding, sealing, damping, reinforcing and protecting solutions that can meet the demands of building for the future.

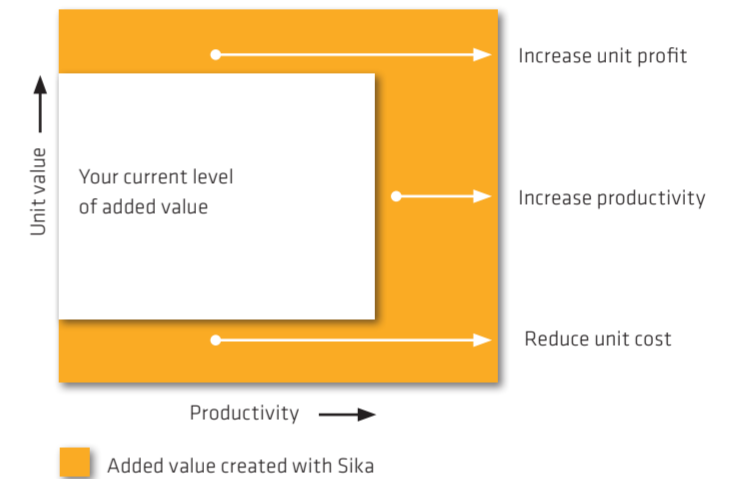
# ADDING VALUE

## BONDING EFFICIENCY

Sika is a partner to you in every aspect of bonding, sealing, damping, reinforcing and protecting. Our objective is to add sustainable value to all key areas of your production bonding process and your finished products.

We strive to help you achieve the most efficient and cost effective production bonding process. Our experts are available worldwide to discuss your needs and wishes. Whether it is to improve certain aspects of your existing process, to set up a new production, develop new products, or to make a bonding process review, Sika can help.

Together we can measure and analyse your production and product parameters to identify areas for improvement, such as reducing unit cost per panel, increasing production speed and ultimately increasing your profitability.



## A RANGE OF PRODUCT SOLUTIONS

- **SikaForce**® one, two and three - component polyurethane adhesives for sandwich panel bonding.
- **SikaMelt**® reactive polyurethane and non-reactive hot melt adhesives for fast process lamination bonding.
- **SikaTherm**® and **SikaSense**® water and solvent based adhesives for a range of laminating applications.
- **Sikaflex**® and **Sikasil**® polyurethane and silicone elastic adhesives for sealing and bonding.
- **SikaFast**® reactive acrylic adhesives for rapid building component assembly operations.

Sika can supply you with these high quality solutions for a wide range of applications in building component production. Bonding, laminating and sealing operations can be carried out using Sika products through the various stages of your production.

Having a range of adhesive solutions to select from and the know-how to help you implement them means that you can be confident to achieve the highest bonding process efficiency with Sika.

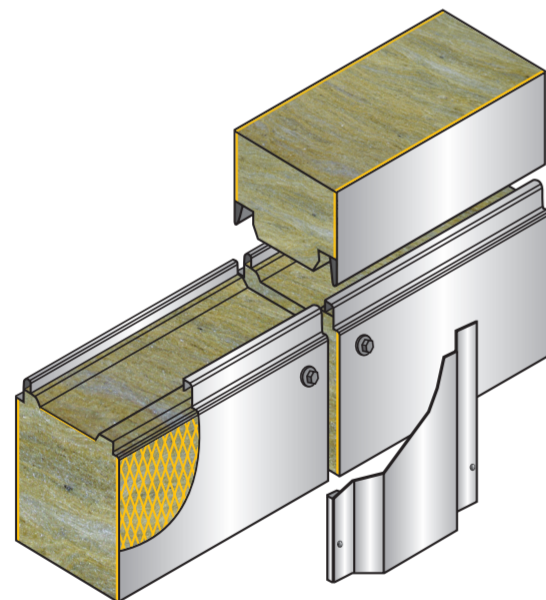


# METAL FACED INSULATED BUILDING PANEL SOLUTIONS



## INCREASING DEMANDS

The market is seeing increasing demand for metal faced insulated building panels with high strength, superior acoustic and fire performances that are used in the construction of energy efficient buildings, temperature controlled environments, cold storage facilities, warehouses, public buildings and more...



Metal faced panels with foam or mineral wool core are widely used in insulated building panels. Sika has, over many years, developed solutions for these applications and with our expert knowledge of the sandwich panel business, we are able to help and advise you on product selection and on production bonding technology.

### BEST RECOMMENDED SIKA PRODUCTS

- **SikaForce®-7748** - Two-component polyurethane adhesive with low calorific value for long continuous production lines
- **SikaForce®-7742 and SikaForce®-7202 catalyst** - Three-component polyurethane adhesive used on long continuous production lines
- **SikaForce®-7741** - Two-component polyurethane adhesive with optimal performance/cost ratio used for continuous production lines
- **SikaForce®-7700** - Two-component polyurethane adhesives, in a range of speeds to suit short continuous production lines
- **SikaForce®-7010** - Curing agent used for both two and three component systems
- **SikaForce®-7110** - One-component moisture curing polyurethane adhesives in a range of curing speeds

# FIRE PERFORMANCE

## SIKA CAN HELP YOU ACHIEVE YOUR DESIRED PERFORMANCE

Fire performance is an important and increasing requirement for building components. Building regulations and building component certifications may place various demands on the adhesive. In Europe, for instance, the regulations are harmonised into the 'Euroclass' classification system, part of which includes reaction to fire for construction products. All building materials then have to be classified within the categories A1 to F for reaction to fire. The European classification system consists of 7 main classes and 2 sub classes: The main classes are: A1, A2, B, C, D, E and F, where A1 is the best classification Sub classes are: Smoke production and flaming droplets

A1	A2	B	C	D	E	F
very limited	limited					

s1	s2	s3

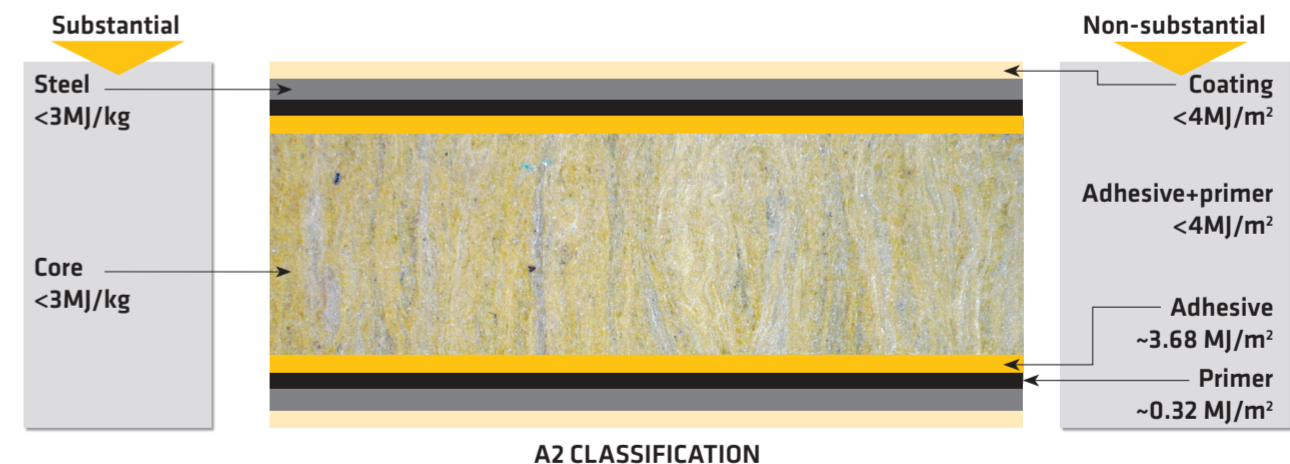
d0	d1	d2
no droplets created		

### BEST RECOMMENDED SIKA PRODUCTS

(THE CALORIFIC VALUE LIMITS THE MAXIMUM ALLOWABLE COAT WEIGHT)

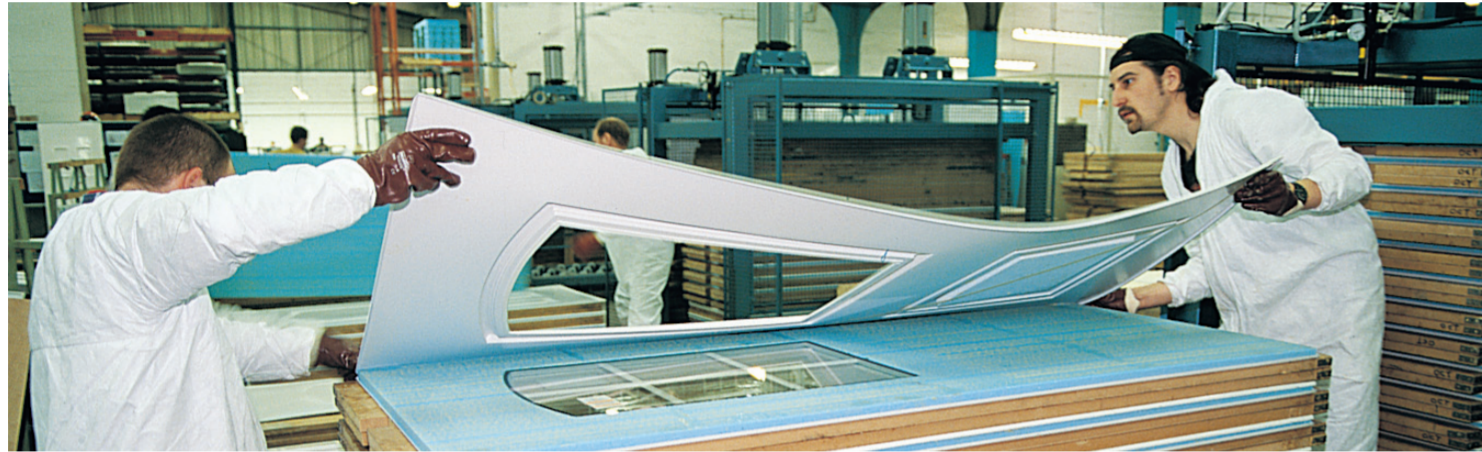
	CALORIFIC VALUE (ISO1716)	MAX. COAT WEIGHT
<b>SikaForce®-7748 L10F</b>	11.6 MJ/kg	317 g/m <sup>2</sup>
<b>SikaForce®-7742 L20F</b>	16.5 MJ/kg	223 g/m <sup>2</sup>
<b>SikaForce®-7741 L3F BL</b>	16.6 MJ/kg	222 g/m <sup>2</sup>
<b>SikaForce®-7700 Series</b>	30.0 MJ/kg	123 g/m <sup>2</sup>

Data shown are typical values for Euro-classification A2. Users must consult with Sika Technical Department prior to any product selection or use.



Classification A2 is one of the highest achievable ratings for an insulated bonded panel and Sika has solutions that customers use to achieve A2, s1, d0 classification on their panels.

# FLOOR TO ROOF BUILDING PANEL SOLUTIONS



## FROM FLOOR TO THE ROOF, SIKA SUPPORTS

Building components combine high strength, low weight, engineered properties, such as insulation and fire performance and have durable, aesthetically pleasing surfaces. Entry doors, partitions, facades, roofing elements, floor panels, honeycomb, decorative panels and ancillary components are bonded constructions using adhesives. Sika's wide product range ensures the right solution.

### ROOFING ELEMENTS

Bonded insulation foams, intermediate and exterior substrates combine to reduce heat loss and create moisture resistance.

### DOORS

Composite constructions combining insulating cores to give thermal insulation and structural reinforcements. Durable skin materials such as uPVC or Aluminium are bonded. Foils are bonded to create aesthetically pleasing and durable laminates.

### PARTITIONS

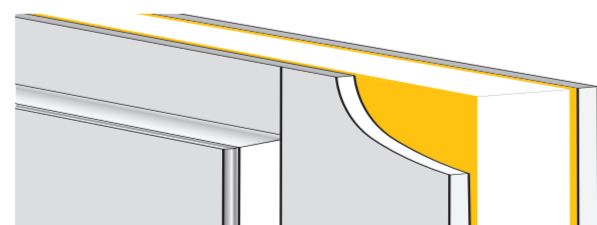
Infill and structural panels are made from laminates to meet various performance demands such as acoustic insulation, clean & durable surfaces and attractive designs.

### HONEYCOMB

Bonded panels using honeycomb core provides high strength combined with low weight.

### FLOORING

Combining strong materials such as steel and high density core for floor panels or laminating foils for high performance flooring laminates.



A wide range of products, combined with many years experience, means that Sika is able to offer you solutions tailored to suit your demands.

### BEST RECOMMENDED SIKA PRODUCTS

- **SikaForce®-7710** – Two-component polyurethane adhesives for general use, in a range of curing speeds
- **SikaForce®-7701** – Two-component polyurethane adhesive for aluminium honeycomb bonding
- **SikaForce®-7010** – Curing agent used for two component polyurethane systems
- **SikaForce®-7100** – One-component moisture curing polyurethane adhesives with low viscosity in a range of curing speeds
- **SikaMelt®-9677** – Polyurethane reactive hot melt multi-purpose
- **SikaMelt®-9676** – Polyurethane reactive hot melt with high green strength
- **SikaMelt®-9674 LV** – Polyurethane reactive hot melt with low viscosity for foil lamination
- **SikaMelt®-9283** – Pressure sensitive hot melt with excellent adhesion and temperature resistance

# SERVICES

## OUR PERFORMANCE, YOUR BENEFITS

PERFORMANCE	BENEFIT
Wide product portfolio and product adaptations	<ul style="list-style-type: none"> <li>■ Proven solutions for a wide range of applications</li> <li>■ Modified or new solutions to suit your specific needs</li> </ul>
Expert Technical Services and System Engineering	<ul style="list-style-type: none"> <li>■ Support in product selection and implementation</li> <li>■ Advise on production bonding technology</li> </ul>
Application Centres equipped with application and test equipment	<ul style="list-style-type: none"> <li>■ Bonding tests, evaluation trials and reports</li> <li>■ Access to adhesive performance testing facilities</li> </ul>
Best practice global solutions and the services of local operations	<ul style="list-style-type: none"> <li>■ Access to global and regional expertise</li> <li>■ Fast local service and support</li> </ul>



## YOUR KEYS TO SUCCESS

Bonding, sealing and laminating operations have been conducted by customers using Sika products through the various stages of building panel production worldwide for over 25 years. You can rely on Sika. Developing new solutions and adapting existing solutions to your specific requirements is done in Sika's Research & Development facilities located at centres around the world. Having an extensive product range and a wide knowledge of bonding processes is one key to successful and efficient production bonding. Having support teams around the world is another. To Sika, this means providing you with Technical Service and System Engineering located both in regional expert centres and in your country. Experts and facilities ready to provide you with support in product selection, testing and evaluation of adhesive solutions and production engineering. Sika is able to supply you with high quality, reliable solutions for your applications in building component production.

# GLOBAL BUT LOCAL PARTNERSHIP



## WHO WE ARE

Sika AG, Switzerland, is a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, facades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting loadbearing structures. Sika's product lines feature high-quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

Our most current General Sales Conditions shall apply.  
Please consult the Data Sheet prior to any use and processing.



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