SIKA CORE COMPETENCIES

SIKA DEVELOPS BONDING, SEALING, DAMPING AND REINFORCING solutions in close co-operation with our customers providing them with our vast experience and expertise across many different market fields.

TECHNICAL SERVICE

Sika Technical Service teams are located around the world, and are dedicated to providing best practice selection, validation and application of Sika materials. By being located close to our customers, Sika Technical Service can ensure optimum local language communication and understanding throughout the technical application development process to ensure best possible results for our customers.

SYSTEM ENGINEERING

Application Technology is a key success factor in the use of adhesives and sealants. Sika's System Engineering Competence Centre focuses on this important task and develops new concepts aimed at holistic solutions for our clients. In this way, we partner the development of solutions including pumping and application systems as well as automated robotic equipment specifically designed to meet individual customer needs.

LOCAL SERVICE AND SUPPORT

With major sales, service and logistics operations around the globe, Sika provides customers with world scale customer service, sales and logistics support via local dedicated teams in their languages.

TECHNOLOGY CENTRES

Sika Technology Centres are focused on the development of new materials. This allows Sika to actively promote technology development with our customers and to add value to the activities of our customers.

STRENGTH IN BONDING

SIKA'S STRUCTURAL ADHESIVES RANGE contains a selection of adhesives from the latest epoxy, polyurethane, methacrylate technologies to meet the highest demands of high-performance bonding applications.

SikaFast®

Acrylic Adhesive Systems

- Excellent adhesion to metals, thermoset composites and most thermoplastics
- Exceptional strength combined with high toughness
- High fatigue resistance
- Good chemical resistance and long-term durability
- Very fast curing
- High elongation for bonding dissimilar materials

SikaPower®

Epoxy Systems

- Excellent adhesion to metals and thermoset composites
- Exceptional strength and high stiffness
- High creep resistance
- High fatigue resistance
- Good temperature resistance
- Excellent chemical resistance and long term durability

SikaForce®

Polyurethane Systems

- Excellent adhesion to most composite materials and plastics
- Good adhesion to metals
- Mechanical properties from rigid to flexible
- High fatigue resistance
- Good long-term durability

PRODUCTS, SERVICES AND INNOVATION ARE THE CORE VALUES THAT HAVE MADE SIKA THE PARTNER OF CHOICE FOR CUSTOMERS.

SikaFast® – STRENGTH, TOUGHNESS AND FLEXIBILITY

THE SikaFast®-5000 SERIES is a range of fast curing, structural adhesives based on acrylic polymers, mixed at a 10:1 volumetric ratio. It cures by polymerisation after homogenous mixing of both components, the reaction is completely independent of moisture. Rapid strength build up is a key characteristic of this type of adhesive.

Sika® ADP Technology

Derived from acrylic chemistry, Sika developed its Sika® ADP technology (Acrylic Double Performance), keeping the positive while overcoming the limiting features of acrylics. This resulted in the unique range of fast-curing, flexible, low odour SikaFast® 2-component adhesive systems. This user friendly, solvent-free adhesive technology forms the basis for a new generation of Sika adhesives, which are characterised by rapid strength development, outstanding adhesion optimal flexibility.

The Benefits of Sika® ADP Technology

- Rapid strength development / short handling times
- Allow bonding of thinner and lighter materials
- High lap shear strength
- Excellent resistance to UV exposure
- Outstanding adhesion to a wide range of substrates
- Low odour
- High strength and flexibility

Product	SikaFast®-5211 NT	SikaFast®-5215 NT	SikaFast®-5221 NT
Description	Fast curing, structural adhesive	Fast curing, structural adhesive	Fast curing, structural adhesive
Technology	2C Acrylic	2C Acrylic	2C Acrylic
Mixing ratio	10:1	10:1	10:1
Color (mixed)	Grey	Grey	Grey
Pot life	3 minutes	5 minutes	10 minutes
Handling time	9 minutes	15 minutes	25 minutes
Lapshear strength	10.0 N/mm²	10.0 N/mm²	10.0 N/mm²
Tensile strength	10.0 N/mm²	10.0 N/mm²	10.0 N/mm²
Elongation	200%	200%	200%
E-Modulus	250 N/mm²	250 N/mm²	250 N/mm²
Glass Transition (Tg)	60°C	60°C	60°C

SikaPower® – HIGH STRUCTURAL INTEGRITY

SikaPower® EPOXY ADHESIVES show higher tensile strength at lower elongations for greater long-term holding power. They are mostly used for rigid substrates (metals, composites) with high static loads capability.

SikaPower® Epoxy Adhesives
SikaPower®-1500 Series adhesives show excellent adhesion properties on almost all the common industrial substrates. It allows wide freedom in design and cost optimization in manufacturing processes. The SikaPower®-1200 Series provide higher impact and fatigue and are therefore best suited for dynamic stresses. They have long-term holding power, higher peel strength, and exceptional higher resistance against shock, vibration and impact loads.

The Benefits of SikaPower® Epoxy Adhesives
- Excellent adhesion to metals and thermoset composites
- High strength and high stiffness
- High creep resistance
- Exceptional fatigue resistance
- Exceptional impact resistance
- Excellent chemical resistance and long term durability

Product	SikaPower® -1511	SikaPower® -1511 LV	SikaPower® -1548	SikaPower® -1554	SikaPower® -1576	SikaPower® -1200	SikaPower® -1277
Description	Fast curing, structural adhesive	Fast curing, low viscosity structural adhesive	Long open time, multi-purpose structural adhesive	Multipurpose toughened thixotropic structural adhesive	Toughened structural adhesive	Structural adhesive powered by SmartCore Technology	Structural adhesive powered by SmartCore Technology
Technology	2C Epoxy	2C Epoxy	2C Epoxy	2C Epoxy	2C Epoxy	2C Epoxy	2C Epoxy
Mixing ratio	1:1	1:1	1:1	1:1	1:1	2:1	2:1
Color (mixed)	Light amber	Light amber	Light yellow	Black	Grey	Green	Red
Pot life	6 minutes	6 minutes	100 minutes	30 minutes	70 minutes	45 minutes	60 minutes
Handling time	10 minutes	10 minutes	8 hours	5 hours	10 hours	10 hours	11 hours
Lapshear strength	20.0 N/mm²	20.0 N/mm²	26.0 N/mm²	24.0 N/mm²	23.0 N/mm²	20.0 N/mm²	28.0 N/mm²
Tensile strength	45.0 N/mm²	45.0 N/mm²	30.0 N/mm²	28.0 N/mm²	27.0 N/mm²	40.0 N/mm²	30.0 N/mm²
Elongation	3%	3%	9%	2%	2%	4%	4%
E-Modulus	3300 N/mm²	3000 N/mm²	1000 N/mm²	2300 N/mm²	2300 N/mm²	2800 N/mm²	2000 N/mm²
Glass Transition (Tg)	55°C	55°C	40°C	63°C	60°C	90°C	67°C

SikaForce® – HIGH FATIGUE RESISTANCE AND DURABILITY

SikaForce® 2-COMPONENT POLYURETHANE ADHESIVES are uniquely versatile in their use. They provide the full spectrum in mechanical performance and have an excellent elongation to strength ratio making them especially suitable for composite bonding.

SikaForce® 2-Component Polyurethane Adhesives
SikaForce® structural adhesives provide a unique combination of elasticity and high shear strength. This versatility is ideal for numerous lightweight applications such as bonding of composites and SMC components. High fatigue resistance and durability are key performance benefits of SikaForce® structural adhesives and make them the preferred solution across different market fields for many years.

The Benefits of SikaForce®-7000 Series
- Provides good gap filling properties
- Enhanced freedom of design
- No odour
- High impact and tear propagation resistance
- Can withstand high dynamic stress
- A variety of open and fixture times
- Capable of bonding dissimilar substrates
- Excellent ageing and chemical resistance

Product	SikaForce®-7818 L7	SikaForce®-7720 L45	SikaForce®-7888 L10
Description	High performance non-sagging structural adhesive	Non-sagging assembly adhesive	Highly structural, fast-curing assembly adhesive
Technology	2C Pur	2C Pur	2C Pur
Mixing ratio	2:1	4:1	1:1
Color (mixed)	Beige	White	Black
Pot life	7 minutes	45 minutes	10 minutes
Handling time	60 minutes	4 hours	60 minutes
Lapshear strength	20.0 N/mm²	10.0 N/mm²	20.0 N/mm²
Tensile strength	35.0 N/mm²	12.0 N/mm²	20.0 N/mm²
Elongation	2.5%	33%	40%
E-Modulus	2500 N/mm²	100 N/mm²	1500 N/mm²
Glass Transition (Tg)	45°C	30°C	40°C

All Technologies Supplied by Sika Provide Unique Advantages

Consider the review below to be in general terms. Specialties in each technology might outperform the stated below and therefore represent an exception.

Key Features of Structural Bonding Technologies