

# HOME APPLIANCES START WITH SMART SOLUTIONS





# OUR CORE COMPETENCIES

Manufacturers of home appliances strive for aesthetic appeal and functionality as well as process optimization and innovation. Sika's extensive technology portfolio serves a broad variety of applications with solutions for sealing, bonding, damping, reinforcing and protecting. Our innovative solutions deliver specific benefits that support our customers achieve their targets.



BONDING

#### > 4 MIO REFRIGERATORS

bonded annually with SikaMelt® and Sikaflex® adhesives

**50 % COST REDUCTION** with SikaMelt® products





> 13 MIO DISHWASHERS per year produced worldwide are quiter thanks to SikaDamp® acoustic systems

> 10 MIO WASHING MACHINES reinforced with Sikaflex®





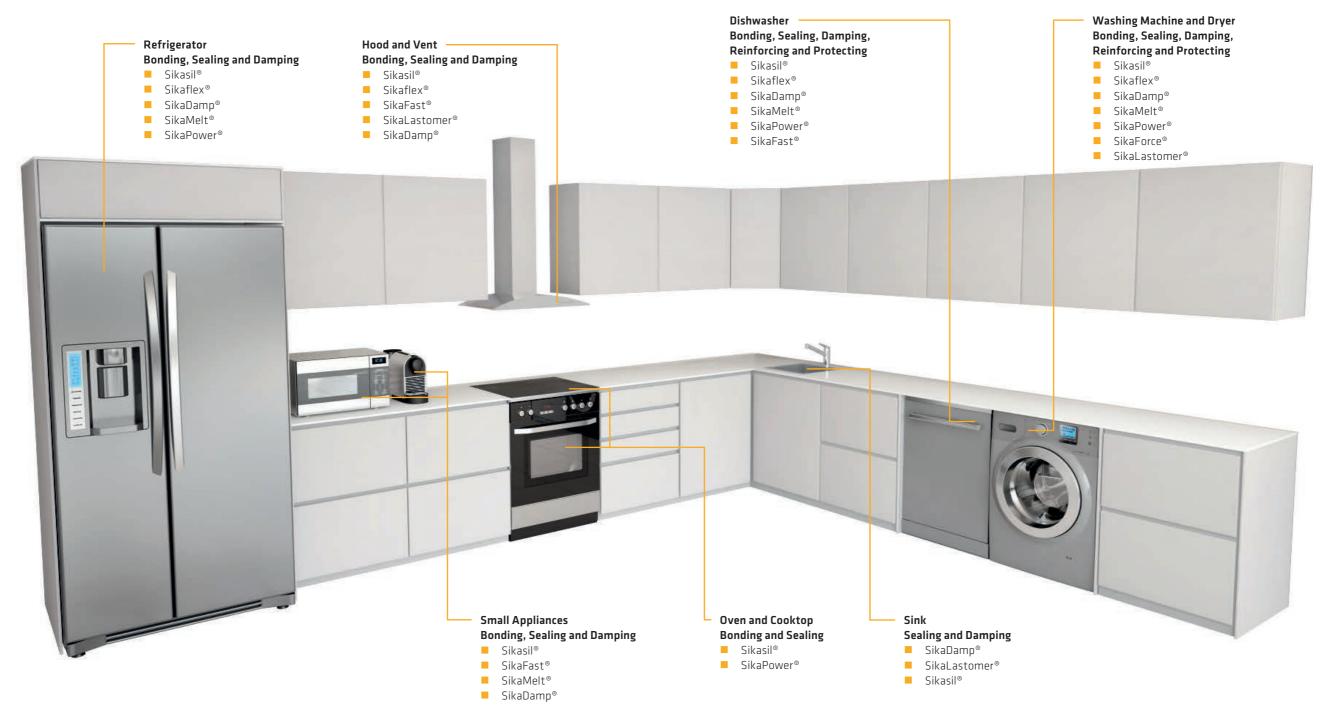
**TOP 4 PRODUCERS** trust Sika to increase durability on new design

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# SIKA SOLUTIONS FOR INCREASED PERFORMANCE

APPLIANCES THAT LOOK AND WORK GREAT are made from components that need to be properly bonded, sealed, damped, reinforced and protected. For these important tasks you can count on Sika. Our technical experts are well prepared to offer solutions that make your appliances quieter, lighter, smarter, more energy efficient, all within a smooth and cost-effective production line. Here is a snapshot of where we can help:





# WIDE TECHNOLOGY RANGE FOR SPECIFIC DEMANDS

Sika offers a broad product range from slow curing solutions for manual applications to very fast settings for short cycles and high resistance technologies to cover every demand related to bonding, sealing, damping, reinforcing and protecting.

BRAND FAMILIES	DESCRIPTION
Sikaflex®	Elastic polyurethanes (PU) and silane terminated polyurethanes (STP) for bonding and sealing
SikaForce®	Rigid structural polyurethanes for fast and strong bonding
SikaPower®	Epoxy sealants and adhesives for structural joints
Sikasil®	Silicones for chemical and heat-resistant bonding and sealing
SikaMelt <sup>®</sup>	Hot melts with high initial tack and processability for fast cycle times
SikaFast <sup>®</sup>	Acrylates with excellent ratio between open time and curing time
SikaDamp®	Preformed bitumen and butyl sheets for vibration and noise damping
SikaLastomer®	Butyl pastes for general sealing applications

# LEAN DESIGN IMPROVED PRODUCT PERFORMANCE COST OPTIMIZATION

# SIKA SOLUTIONS FOR REFRIGERATORS AND FREEZERS

TO INTELLIGENT COOLING SYSTEMS, SIKA SOLUTIONS OFFER THE VISUAL DESIGN, NOISE CONTROL AND

#### HOUSING BONDING AND STIFFENING —



- Minimization of welding points
- Structural bonding and sealing in one-shot
- Increased body stiffness and corrosion reduction

SikaPower®-415 P1 Flexible, one-component, thixotropic, cold-applied, heatcuring sealant based on epoxy hybrid technology

**SikaPower®-1511** Ultra fast and cold curing two-component epoxy

#### CONTROL PANEL BONDING



- Full automation possible
- Secured durability
- In-process application

**SikaMelt®-9285** High performance pressure sensitive hot melt **SikaMelt®-9670** Reactive polyurethane hot melt for short cycle lines

#### **DECOR PANEL BONDING** -



- Adhesion to glass and plastic frames with high initial strength and fast cure
- Cost-effective solution vs. tapes plus design freedom
- Suitable for fully automated processes

SikaMelt®-9675 IS Reactive polyurethane hot melt with long open time **Sikaflex®-250 PC** One-component polyurethane with high initial strength



#### HANDLE REINFORCEMENT AND GENERAL SEALING



- Simple application
- Broad adhesion spectrum
- High durability

Highly durable, mold resistant and incidental food contact approved STP adhesive.

#### INSULATION GLASS DOOR FOR COMMERCIAL REFRIGERATORS AND FREEZERS



- Adhesion to glass and plastic frames with high durability and UV resistance
- Suitable for automated application
- Proven IG technology

Sikasil® AS-785 Sikasil® IG-25

High performance fast curing two-component silicone Durable structural two-component silicone and secondary sealant in insulating glass

#### **SEAM SEALING**



- Cost-effective vs. tapes, can be foamed up to 60 % to further reduce unit cost
- Manual or fully automated application, applicable in any shape and geometry for design freedom
- High bonding strength even in warm settings, withstands high pressure and temperature during injection

**SikaMelt®-9285** High performance pressure sensitive hot melt

#### NOISE DAMPING AND CONDENSATION PREVENTION



- Good gap filling properties, easy fixation of pads, excellent noise reduction at thin lavers
- Good adhesion without primer, water-resistant, minimal water absorption, prevents condensation
- No smell, no corrosion or pollution in contact with copper pipes and paintwork

**SikaDamp® VTS-15** Heat-resistant preformed butyl pads (with aluminum sheet) SikaDamp® VHS-15 Heat-conductive preformed butyl sheet prevents ice accumulation

# SIKA SOLUTIONS FOR HOT APPLIANCES

#### CONTROL PANEL BONDING



- Full automation possible Secured durability
- In-process application

**Sikasil® AS-785** High performance fast curing two-component silicone **SikaMelt®-9675 IS** Reactive polyurethane hot melt with long open time



#### COOK TOP AND CERAMIC HOB FIXATION AND SEALING



- No mechanical fastening: durability thanks to structural
- Broad service temperature (-40 °C to 180 °C), wide adhesion range, minimal preparation
- More output with optimized production

Sikasil® AS-785 Sikasil® AS-70

Ultra fast curing two-component assembly silicone High performance fast curing two-component silicone High performance one-component silicone

#### CORNER BRACKET BONDING OF DRAWER —



- Fast assembly possible with elimination of mechanical
- Few process steps and small parts handling
- Durable connection system

SikaPower®-1511

**SikaFast®-5211 NT** Fast curing, two-component acrylic structural adhesive Ultra fast and cold curing two-component epoxy

#### **OVEN GLASS BONDING**



- No mechanical fastening: durability thanks to structural
- Enhanced freedom for appealing designs
- More output with optimized production

Ultra fast curing two-component assembly silicone High performance fast curing two-component silicone

# SIKA SOLUTIONS FOR WASHING MACHINES AND DRYERS

BEYOND DURABLE CONNECTIONS FOR MAXIMUM PROCESSES INTO A FULLY AUTOMATED ROBOTIC LINE.

#### COUNTER WEIGHT BONDING -



- Fewer stress peaks and better load distribution
- Enhanced damping from vibration and noise
- Substantial cost savings: allows for fully automated high speed production

Sikaflex®-254 Sikaflex®-554

One-component PU, can be accelerated with SikaBooster® One-component STP, can be accelerated with SikaBooster®

#### DOOR SEALING -



- Easy to apply, cures without heat
- Wide adhesion spectrum and good aging resistance
- Plastic product with good non-sagging performance

SikaLastomer®-710 Non-sagging, butyl paste

#### **HEAT CONDENSER BONDING FOR DRYERS**



- Good gap filling properties and adhesion to a wide range of substrates
- Good aging and chemical resistance
- Room temperature curing with solvent free technology

**SikaForce®-1710/1600** Low viscosity two-component structural polyurethane SikaMelt®-9185 IA Low density reactive polyolefin hot melt



#### **TOP PANEL BONDING**



- Cost-effective vs. tapes and two-component liquid PU: less adhesive consumption
- Fully automated application possible
- High final strength and flexibility, handling within

**SikaMelt®-9678** Reactive polyurethane hot melt for short cycle lines

#### **CONTROL PANEL BONDING**



- Full automation possible
- Secured durability
- In-process application

**SikaMelt®-9285** High performance pressure sensitive hot melt **SikaMelt®-9670** Reactive polyurethane hot melt for short cycle lines

#### **FELT BONDING FOR NOISE REDUCTION**



- Easy bonding of non-woven felt, performs a wide variety of substrates
- Faster production and simple to use: eliminates risk of processing errors
- Cost competitive solution vs. tapes

SikaMelt®-9230 Pressure sensitive hot melt, excellent self-adhesive

#### **VIBRATION - NOISE REDUCTION**



- Customized shape
- Full automation possible
- Specialized for steel and plastic substrate

SikaDamp®-115

Meltsheets and self-adhesive sheets for vibration and noise damping

# SIKA SOLUTIONS FOR DISHWASHERS

#### CONTROL PANEL BONDING —



- Full automation possible
- Secured durability
- In-process application

**SikaMelt®-9285** High performance pressure sensitive hot melt **SikaMelt®-9670** Reactive polyurethane hot melt for short cycle lines

#### DECOR PANEL BONDING -



- Good adhesion to glass and plastic frames
- Cost-effective solution vs. tapes with design freedom
- Suitable for fully automated processes

SikaMelt®-9675 IS Reactive polyurethane hot melt with long open time **Sikaflex®-250 PC** One-component polyurethane with high initial strength

#### SOUND DAMPING -



- Cost-effective solution
- Easy application with automatized pick-and-place technology possible
- Customized shape

SikaDamp®-110 SikaDamp®-120

Cost-effective acoustic noise reduction meltsheets in various surface weight/thicknesses available

#### **TOP PANEL BONDING**



- Cost-effective vs. tapes and two-component liquid PU: less adhesive consumption
- Fully automated application possible
- High final strength and flexibility, handling within

**SikaMelt®-9678** Reactive polyurethane hot melt for short cycle lines

#### **HOUSING SEALING**



- Rear wall bonding and housing sealing with process
- Fewer stress peaks and better load distribution
- Noise and vibration damping

Sikaflex®-554

High performance fast curing two-component silicone One-component STP, can be accelerated with SikaBooster®

#### STIFFENER AND METAL CASE BONDING



- Elastic bonding can damp from vibration and noise while reinforcing and stabilizing housing
- Minimum stress peaks into the metal frame, preventing tearing and warping
- Material and labour savings

Sikaflex®-254

One-component PU, can be accelerated with SikaBooster® **SikaPower®-1511** Ultra fast and cold curing two-component epoxy

#### **CORNER BRACKET BONDING OF FRONT SHEET**



- Fast assembly combined with no mechanical fastening
- Fewer process steps and small parts handling
- Durable connection system

SikaFast®-5211 NT Fast curing, two-component acrylic structural adhesive **SikaPower®-1511** Ultra fast and cold curing two-component epoxy

## GOING BEYOND THE STANDARD

#### **ONE-COMPONENT VS. TWO-COMPONENT ADHESIVES**

Whether a one- or two-component is more suitable depends on many parameters. Sika can help you find the ideal solution by evaluating your specific conditions.

**One Component** - cures from the outside by moisture at a typical speed of 3 to 5 mm/day. Added heat/moisture can speed the curing process.

- Curing depends on environmental conditions
- Suitable for discontinuous operations
- No mixing required

**Two Component** - cures by mixing components together. Speed can be tailored to most processes, from fully automated to manual lines.

- Fast curing (within seconds), independent from environment
- Process speed predictable and constant
- Automatic equipment for mixing needed

## FROM MECHANICAL FIXATION TO BONDING

Screwing, bolting and welding cause high stress concentrations, require additional process steps as well as small material handling, and present corrosion risk.

**Bonding** is a more advanced solution, allows for even distribution of stress, causes no harm to surfaces, reduces noise and vibration, and automates processes.

Sika bonding delivers:

- Substantial savings through reduction in material cost
- Fully automated high speed production
- Increased performance and long life cycle
- Higher design freedom

#### SPEEDING UP WITH SikaMelt®, OUR HOT MELT ADHESIVES

SikaMelt® offers a more cost-effective solution to tapes by removing the carrier and applying the hot melt adhesive directly to the components. These are the advantages of SikaMelt®:

- Major cost savings in cycle time reduction and material
- Both manual or fully automated application
- Repositioning within the open time
- Liquid application in any bead shape; in some cases the adhesive can be foamed
- No mixing (one-component)

#### **BEYOND PRODUCT**

Consultancy	Review of appliances design and processing for advice on bonding, sealing, damping, reinforcing, and protecting solutions
Testing	Support at prototyping, compatibility and performance tests as well as of acoustical evaluation thanks to inhouse facilities
Application	Assistance in determining the right solution for you, from system engineering to quality and application procedures
Training	Training of applicators in your production sites and labs

## CREATING ADDED VALUE

OUR GOAL IS TO HELP YOU ACHIEVE YOUR TARGETS. NO MATTER WHAT OR WHERE. Our

technical experts can help you assess key process steps as well as unit construction specifics that can be improved with Sika. With the right solution you benefit from optimized material consumption and cycle time, waste reduction, improved durability, noise reduction, lean design, and more.



## FINDING SOLUTIONS TOGETHER

**ACHIEVE THE HIGHEST PRODUCT QUALITY** and process efficiency with Sika's range of structural adhesives, sealants, hot melt and damping solutions with the service to help you implementing them. With global expertise and local organizations, you can rely on Sika for your best solution.

# FROM DESIGN TO PRODUCTION

Sika develops **bonding**, **sealing**, **damping**, **reinforcing and protecting solutions** in close cooperation with you, offering:

- Best-in-class technology to match your technical and commercial requirements
- Support to ensure performance throughout design, prototyping, validation and full production phases

# SYSTEM ENGINEERING

At **Sika Competence Centers** our system engineers work on solutions with you and for you to achieve targeted results:

- Savings in production cost and material usage
- Optimization and automation of assembly line

# TECHNICAL SERVICE

**Local Sika Technical Service** teams are around the world, close to where you design, develop, produce and sell:

- Fast and reliable tests based on international and local standards
- Optimal communication and understanding throughout the entire process

# INNOVATION

LEAN

GREEN

SILENT

EFFICIENT



# GLOBAL BUT LOCAL PARTNERSHIP



# FOR MORE INFORMATION:



www.sika.com/home-appliances

#### WHO WE ARE

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector, manufacture and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, flooring as well as roofing and waterproofing systems.



Website: www.maxtronix.net

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SIKA SERVICES AG

Tueffenwies 16 8048 Zurich Switzerland Contact

Phone: +41 58 436 40 40 Fax: +41 58 436 55 30 www.sika.com/home-appliances

