



Structural Flexible Durable

SAF METHACRYLATE ADHESIVES

**Smart Help:
Please contact your
sales representative.**

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an Arkema company



BOSTIK S.A. RCS BOBIGNY B 332 110 097 - © Xarrow - © Istockphoto





The SAF Range, MMA Adhesive Technology

Finding an innovative solution to answer the several constraints of industrial bonding can be sometimes challenging. Our laboratory has successfully developed a range of structural adhesives with excellent technical properties to meet the highest requirements.

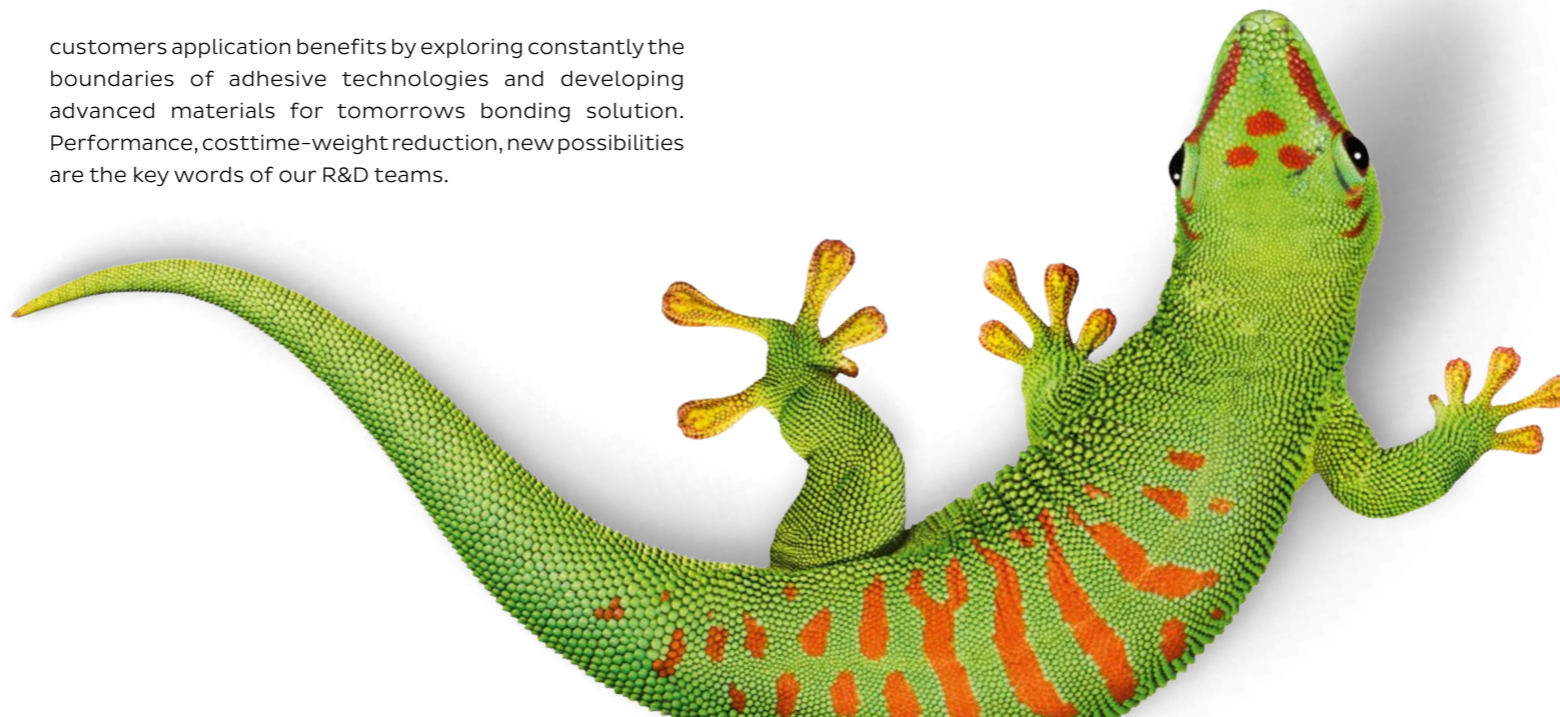
BOSTIK

Bostik is a leading global adhesive specialist in industrial, construction and consumer markets. For more than a century, it has been developing innovative adhesive solutions that are smarter and more adaptive to the forces that shape daily lives.

From cradle to grave, from home to office, Bostik's smart adhesives can be found everywhere. With annual sales of €1.6 billion, the company employs 4,900 people and has a presence in more than 50 countries. Bostik's products fulfil global demand for adhesives and sealants in three sectors, Industry, Construction and Consumer.

Innovation is our DNA. At Bostik we are on a constant quest to find new smarter ways of doing things. Innovation is at the heart of our history and remains one of our biggest priorities today. Our global scale research on adhesive with three smart technical centers, eleven applied technical centers and 500 R&D specialists is only focused on

customers application benefits by exploring constantly the boundaries of adhesive technologies and developing advanced materials for tomorrows bonding solution. Performance, costtime-weight reduction, new possibilities are the key words of our R&D teams.



WHAT IS STRUCTURAL BONDING?

Structural adhesives are load-bearing adhesives. Structural adhesive add strength to the final part that has being bonded, they bring high strength for durable and reliability on a wide range of substrates and numbers of application like boats, bus, trains, cars, airplane. Structural adhesives can replace traditional mechanical fastening like welding, rivets... and improve aesthetics, durability and fatigue resistance.

METHYL-METHACRYLATE (MMA) ADHESIVES

MMA adhesives provide a unique balance of high strength, impact and fatigue resistance, flexibility, elongation, shear and peel strength, and are usable within a wide range of temperature. MMA adhesives are 2 components adhesives, 100% reactive with 10 to 1, 4 to 1 and 1 to 1 mixing ratios. MMA allows low to no surface preparation depending the material and permits to bond plastics, composites, metals. MMA adhesive cure at ambient temperature and have controlled cure speed with appropriate mixing but tolerate off ratio mixing up to 10%. MMA adhesives are not sensitive to moisture, resists to water and chemicals.

WHY USE SAF STRUCTURAL ADHESIVES AND WHAT SAF BRINGS YOU ?

Designed with patented methacrylate technology, our SAF range shows unmatched performance in term of resistance, flexibility, durability and resistance to lots of chemicals. These adhesives have been designed for bonding a wide range of dissimilar substrates including metals and plastics as well as composite materials for industrial applications. The outstanding properties of the SAF range allow structural bonding while keeping flexibility and fatigue resistance. From the flexible range (400% elongation) to the hyper-structural (30% elongation), they show open times from one minute to 90 minutes to fit your specific needs.

SAFE ADHESIVE

Our permanent objective is to imagine solutions that make our world safer, more flexible, efficient and responsive to the dynamic challenges of our environment, our engineers follows continuously the legislation to provide you the safest formulas for the best protection of your workers. The SAF products have been developed to resist the most aggressive environments and show unprecedented results facing weathering and ageing.

APPLICATIONS

SAF Adhesives allow to bond a wide range of dissimilar materials and a large number of substrates including:



COMPOSITES

The SAF range offers numerous solutions to meet the increasing challenge of weight reduction by using composites. SAF low exotherm and thixotropic properties allow large gap filling, applications on vertical surfaces and no read through.

METALS

The SAF range is designed to bond to a variety of metals like aluminium, steel, stainless or galvanized steel with low surface preparation. SAF high elasticity allows to support differential thermal expansion for hybrid bondings and avoid read through to aesthetic surfaces.

PLASTICS

The SAF range allows to bond numerous plastics including ABS, PMMA, PVC, PC and others. SAF ability to bond other materials makes possible to assemble plastic parts to metals, glass and composites.



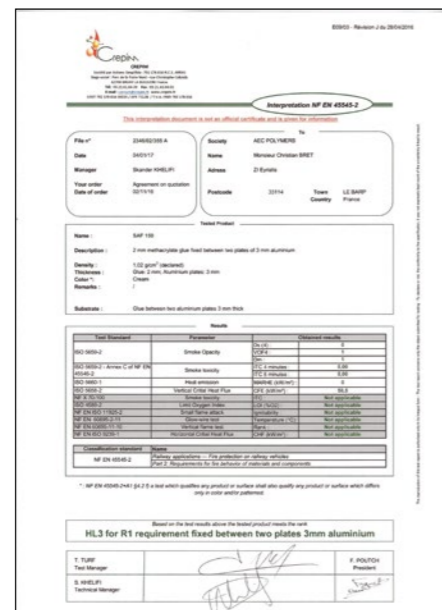
FEATURES AND BENEFITS

- Excellent environmental and chemical resistance** ▶ *unique resistance to aggressive environments*
- Primer-less** ▶ *production efficiency, reduce consumable, NO VOC*
- Permanent toughness and high elongation** ▶ *Very high elongation and impact resistance even after ageing*
- Minimal surface preparation** ▶ *Time and cost reduction*
- Wide service temperature range** ▶ *Usage between -40°C to 150°C, while keeping mechanical properties. Up to 220°C for 25min powder coating*
- Non-sag, application on vertical surface** ▶ *Remains in position when applied on vertical or overhead surfaces*
- Wide range of open and curing time** ▶ *Selection to fit application and process requirements*

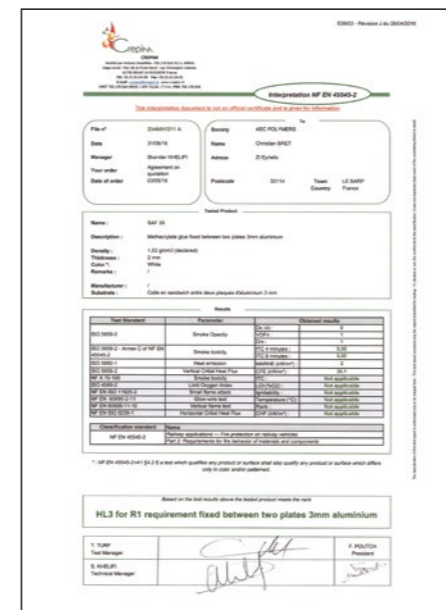
CERTIFICATIONS



BV Marine



EN 45 545 Rail SAF150



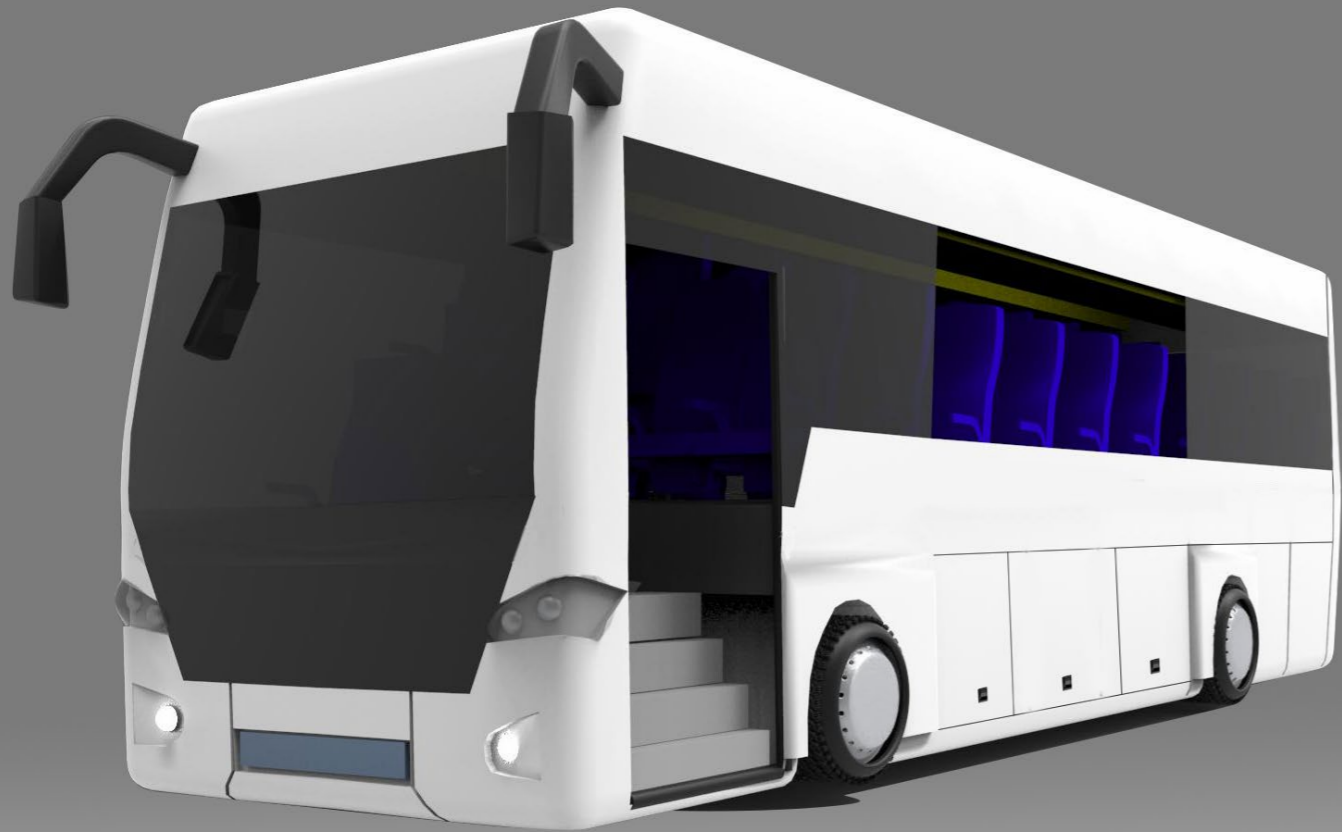
EN 45 545 Rail SAF30

Our solutions for the Marine Market

Bostik SAF structural are revolutionary and perfect for all marine application. Protecting all composites resins with low exotherm reaction and very low shrinkage, SAF structural adhesive avoids read through and stresses on to the composites. SAF high thixotropic properties allows large bead application on vertical surface and reduce by far dispensing time. SAF allows you to use faster curing products than usual and reduce your production costs. Bostik SAF30 range is BV certified for all structural application in Marine industry.

APPLICATION		KEY FEATURES
SAF30 15	Bracket / Bulkhead	Structural / High modulus / fast curing / BV Marine
SAF30 45	Bracket / Bulkhead / Stringer / Mast rail / Chandlery	Structural / High modulus / Medium curing
SAF30 60	Roof / Deck to Hull / Stringer / Single console	Structural / High modulus / slow curing (with hadener DX)
FIT30 90	Stringer / Deck to hull / Console / Roof	Non Sagging / High gap filling / Long open time/ High strength
SAF30 120	Roof / Deck to Hull / Stringer	Extended long open time / High strength resistance / Very high gap filling
SAF150 15	Plastic windows / Composite parts	Underwater application / No readthrough / medium modulus
SAF400 15	Windows	Large area bonding / Very high elongation / Medium curing time

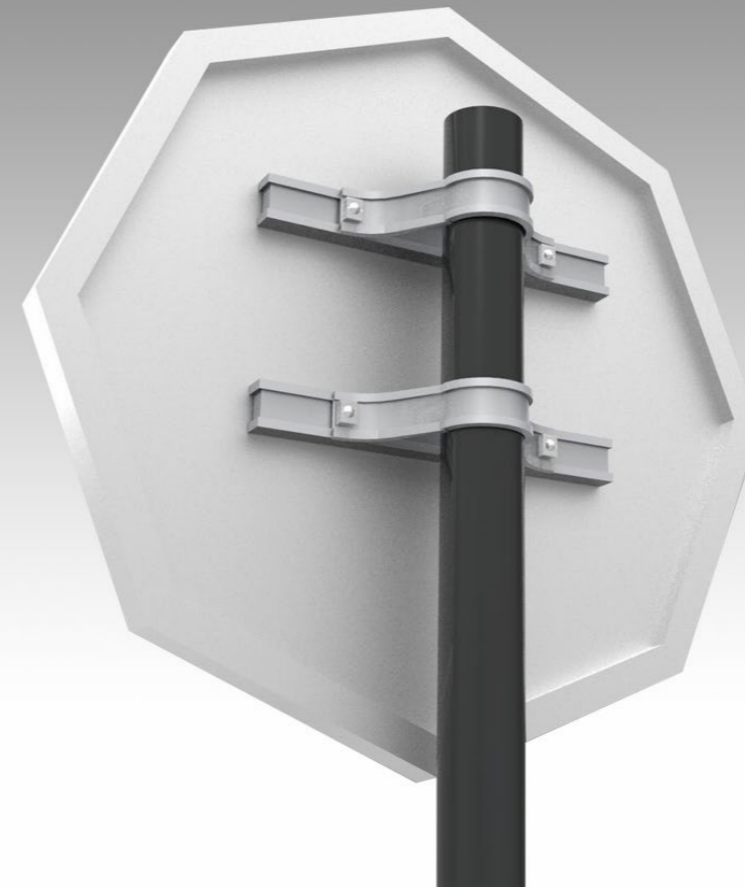




Our solutions for the Transportation Market

Bostik SAF structural adhesive higher performances with higher strength, higher fatigue resistance, long lasting allows you to replace conventional mechanical fastenings like welding, riveting... SAF structural adhesive with its special formulae avoid printing on thin aluminum panels and lower the weight of your parts. SAF reduces your production costs and manufacturing process, improves aesthetics, increase climatic and chemical resistance. Bostik SAF structural adhesives makes your bonding applications easier, faster and safer with EN45 545-2 certified, HL3 for R1 requirement for SAF30 and SAF150.

APPLICATION		KEY FEATURES
SAF Ultimate 15	Panel bonding-doors / Roof / Front grill	Metal bonding / Powder coating resistant / High impact resistant / No printing
SAF Ultimate 25	Large panel bonding-doors / Roof	Metal bonding / High impact resistant / No printing / Slow curing
SAF Ultimate 10	Panel bonding-doors / Roof / Seats structure	Metal bonding / High impact resistant / Fast curing
SAF30 MIB	Temperature resistance / Rubbers	High strength resistance / Temperature performance under stress / Wide range of metal
SAF30 15	Brackets to composite-bumpers / front-back face / Inside FRP parts	Structural / High modulus / Fast curing
SAF150 15	Brackets to composite / Inside plastic bonding / Lights / Bumper cap	High Elongation / Fast curing / Multipurpose / No printing
SAF400 15	Windows	Large area bonding / Very high elongation / Medium curing time



Our solutions for the Signs & Display Market

Bostik SAF structural adhesives are ideal for sign & display industry application. SAF high and durable elongation allows you to bond dissimilar materials like PMMA to aluminum and easily absorb different coefficient of thermal expansion. SAF structural adhesive crystal-clear quality keeps your bond line completely invisible and makes your assemblies easier to design and faster to produce.

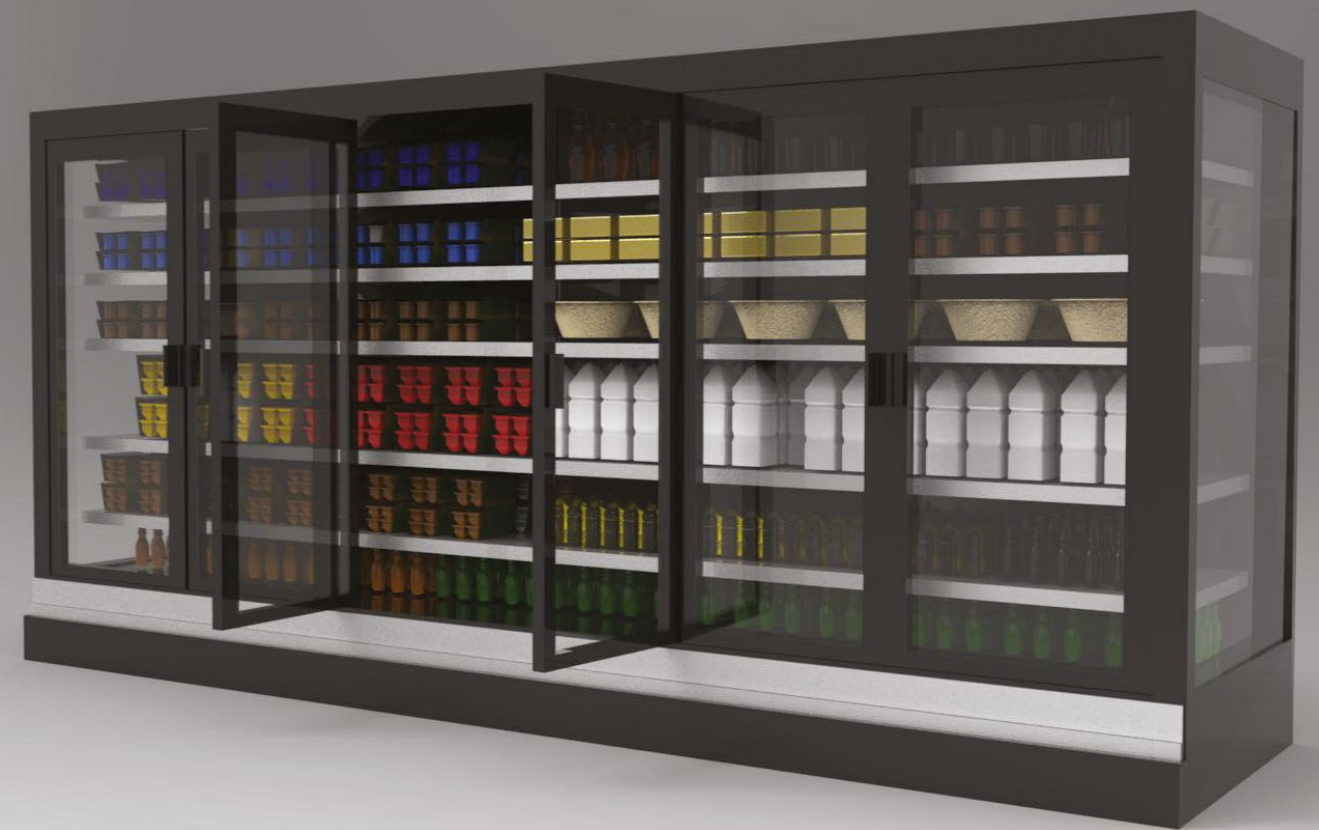
APPLICATION		KEY FEATURES
SAF Ultimate 15	Panel / Stiffener / Alu composite	Metal bonding / Powder coating resistant / High impact resistant / No printing
SAF Ultimate 10	Stiffener bonding / Alu composite	Metal bonding / High impact resistant / Fast curing
SAF150 15	Plastic bonding / Channel letter above 60cm	High Elongation / Fast curing / Multipurpose / No printing
SAF150 45	Large plastic parts	High Elongation / Slow curing / Multipurpose / No printing
B1023	Transparent plastic bonding / Channel letter under 60cm	Crystal clear - Ultra fast curing
B103	Plastic fixing parts	High impact / Temperature resistant / Very fast curing time



Our solutions for the Automotive Market

Bostik SAF structural adhesives are used by car manufacturers to bond spoilers, dash boards, bumpers, body panels, grills.... SAF structural adhesives are fully compatible with the thermoplastics so it does not print or weaken the plastic at the bonding line. Bostik SAF high performance solutions brings you new ways of design, aesthetics solutions, cost efficiency in your production process on all type of material used for the inside or outside dissimilar or not. Bostik SAF structural adhesive proven durability makes it the best product on the market.

APPLICATION		KEY FEATURES
SAF30 MIB	Steppers / Rubbers / Metal	High strength resistance / Temperature performance under stress / Wide range of metal
SAF Ultimate 15	Panel bonding	Metal bonding / Powder coating resistant / High impact resistant / No printing
SAF150 15	Plactic binding / Dashboards / Bumpers	High Elongation / Fast curing / Multipurpose / No printing
B1023	Transparent plastic bonding / Lights	Crystal Clear / Very fast curing / Non-yellowing
SAF400 15	Windows	Large area bonding / Very high elongation / Medium curing time



Our solutions for General Industry Market

Bostik SAF structural adhesives are specially designed to answer all your bonding needs for all type of application. For plastics, metals, glass, composites; Bostik SAF versatility, high elongation and flexibility, high strength, excellent durability makes it your best friend for all the assemblies you need to do on similar or dissimilar substrates.

APPLICATION		KEY FEATURES
SAF Ultimate 15	Metal panel bonding / Chassis of solar panel	Metal bonding / Powder coating resistant / High impact resistant / No printing
SAF Ultimate 25	Large Metal panel bonding / SMC	Metal bonding / Slow curing / High impact resistant / No printing
SAF30	Composite bonding for renewable energy / Solar / Wind / Hydro	Structural / High modulus / Fast curing / Very fast to slow curing
SAF150 15	Plastic Bonding / Glass to metal / Long length bondings	High Elongation / Fast curing / Multipurpose / No printing
B103	Magnets bonding / Metal	High impact / Temperature resistant / Very fast curing time

