

Product group

Solvent-borne 1-K polyurethane adhesive and seam sealer.

Product description

Aquasure+FD permanently bonds, seals and waterproofs hundreds of materials. This unique formula is the industry standard for maximum bond strength, abrasion resistance, flexibility and waterproofing. Physically, Aquasure+FD is a high viscosity gel that cures to an extremely elasticated, clear urethane rubber. Since it is a thermoset urethane, cured Aquasure+FD is impervious to solvents (such as petrol) or extremes of temperature (-40°C to +90°C). Aquasure+FD is ideal for bonding neoprene, fabrics, latex, trilaminates, PVC, Hypalon®, natural and synthetic leather, foams, composites and many plastics. This specialized formula is ideal for sealing stitching and reinforcing high stress areas on wet suits, dry suits, Hypalon and PVC boats and hundreds of other items. Aquasure+FD also makes an ideal abrasion patch for high wear areas such as knees, seats and luggage bottoms. Seals and repairs made with Aquasure generally last the life of the item.

Characteristics and uses

Concentrated urethane rubber formula. Minimal shrinkage. Requires only one application. Thermoset rubber, unaffected by solvents or extremes of heat or cold (-40°C to +90°C).

Refer to Safety Data Sheet for more detailed information.

Typical Applications:

Industrial use: Seam sealing on drysuits, neoprene articles e.g. rubber boots with neoprene shaft. Bonding and sealing flexible or elastic elements in the medical field, aircraft and railway construction, inflatables and much more.

Repair shop/Private use: Repair leaks and holes in wetsuits and drysuits, waders, wellington and rubberboats, trainers shoes, waterproof and foul weather clothing.

100 uses and more ...

Repair holes and tears in neoprene waders, wetsuits, booties, gloves	Reattaches shock cord to tent pole interior	Repairs valves and punctures in all inflatable mattresses, balls, rafts, toys, etc.	Prevents lines, ropes and threads from unraveling	Coats bottom strap of Gaiter to prevent abrasion	Seals electrical connections from water or air contact	Forms eyes on ribbon for carabiner gate tester
Seal seams and pinholes in leaky waders	Reattaches tent pole tips	Seals seams and repairs all types of waterproof dry bags	Prevents cut fabric from unraveling	Seals leaky ice chests	Seals water out of boat's and R. V.'s trailer electrical connections	Repairs broken knob on gas stoves
Seal gasket seams on dry suits	Repairs ripped zippers on tents	Repairs shoe and boot soles	Locks screws and threaded fasteners in place and seals out moisture	Repairs and seals the seams on Fishing waders	Repairs and seals boat tarps, awnings, upholstery and decking	Repairs stove anchors on counters
Create reinforcement on high wear areas	Seals the seams of all types of rain wear	Repairs shoe and boot soles	Reattaches climbing shoe rands	Repairs and seals the seams on Dry Suits, Wet Suits & accessories	Makes an emergency rubber gasket for ocean vessels out of Seam Grip	Repairs convertible car tops
Adding a pocket to a wetsuit	Repairs rips and tears in rainwear and other breathable waterproof clothing	Repairs delaminated insoles	Seals ends of shoe laces	Repairs SCUBA diving equipment	Repairs rubber mats	Repairs automobile seats and interior
Repair holes in inflatable rafts, kayaks, and float tubes	Repairs leaks in self inflating mattresses	Repairs rubber or leather work boots and shoes	Repairs rips and tears in garments	Repairs sunshowers bladders and valves	Seals and caulks boats	Repairs car door and window weather stripping
Seals seams on tents, tent flies, tarps & awnings	Cements valves in self inflating mattresses	Repairs cracks and fills holes in rain boots	Repairs torn zipper skirts	Repairs sailboat and sailboard sails	Coats cast iron and other metal fittings to prevent rust	Repairs door frame weather stripping
Repairs rips and tears and fills holes in tents, tent flies, tarps & awnings	Provides a non-slip surface on top of inflatable mattresses	Waterproofs seams on shoes and boots	Repairs rips and tears in sleeping bags	Repairs emergency floatation/rescue devices	Repairs rubber mats	Repairs orthopedic supports
Coats high abrasion areas on tents, tarps and awnings	Repairs Hypalon, PVC, and Vinyl inflatable watercrafts	Coats & protects leather boot uppers from welding sparks	Repairs seams for all types of gloves	Repairs survival suits	Repairs all rubber tires	Repairs all rubber tires
Repairs damaged stitching on tents, tarps and awnings	Provides an abrasion layer to the bottom of all inflatable watercraft hulls	Repairs rips and tears and seals seams on backpacks	Repairs holes for all types of gloves	Repairs life vests	Bonds PVC pipe joints	Repairs rips or tears in snowmobile seats
Reattaches fasteners and guy lines to tents, tarps and awnings	Repairs punctures in collapsible fuel bag bladders	Reinforces high abrasion areas in backpacks	Coats glove palms to provide added grip and to prevent abrasion	Seals underwater electrical connections, Seam Grip cures underwater	Repairs rips or tears in snowmobile seats	Repairs eyeglasses, goggles and protective eye wear
		Prevents knots from coming untied	Coats outside of industrial gloves to prevent abrasion	Seals pool linings, Seam grip cures underwater	Cements snowmobile start control knob in place	Repairs delaminated snow skis
					Seals and repairs aquariums	Repairs waterski bindings, ropes and gloves

General Properties

Technology/Base	solvent-borne Polyurethane (PU)
Curing	Moisture curing
Mechanical Properties	Elastic
Parts	One part system (1K)
Physical form, colour	Liquid, viscous, transparent
Product Benefits	Waterproof High cold resistance Excellent moisture resistance Excellent weather resistance Excellent abrasion resistance

Physical Properties

Density	0.98 g/cm ³ (DIN EN 542)
Solid-content by weight	75% [calculated]
Solvent content	25% [calculated]
Viscosity	39.000 - 61.000 mPa*s @ 23°C (Brookfield)
Flash Point	-25°C
Water Solubility	Insoluble

Processing Properties

Surface Requirements	Dry, Clean, Free of grease and silicone
Suitable Substrates	Polyamide (PA), Polyester, Polyurethane (PUR) Polyvinyl Chloride (PVC), various composite materials (e.g. CFRP, GFRP), breathable waterproof fabrics, cotton, neoprene, leather, rubber, polyurethane coated fabrics, canvas, wood, metal, ceramic, and many more.
Cleaner for Tools	IPA, Acetone, Xylene,

Special Hints

Stress Cracking	For plastics that are prone to stress cracking, preliminary tests must be carried out.
Compatibility with Polystyrene Foams	Not suitable for bonding polystyrene foams.
Resistance against UV Radiation	Not suitable for application with permanent direct UV radiation to the cured adhesive. Will yellow over time. Will stay stable against UV radiation for certain period.
Avoid Contact with Isocyanate Reactive Substances	Avoid direct contact with isocyanate-reactive substances, especially alcohols such as spirits, thinners, cleaning agents, and decomposition products of silane-modified polymers or silicones, until the adhesive is fully cured. This will prevent the adhesive from curing properly.

Surface condition

Clean and dry surface, using isopropyl alcohol. Non-fabric surfaces such as latex should first be keyed with sandpaper, and then cleaned.

Instructions for use**— Application**

Apply using a brush, spatula, spreader or adhesive gun.

- **SEAMS:** Apply a 2mm thick bead, overlapping seam edges by at least 5mm. Apply with slight pressure to saturate fabric surfaces.
 - **HOLE AND TEARS:** Create backing with removable tape and fill void, overlapping void edges by 5mm. Remove tape after full cure.
 - **PATCH APPLICATION:** On fabrics and breathable laminate, apply Aquasure+FD, then apply patch over damaged area. Wipe away excess adhesive.
 - **HIGH WEAR AREAS:** Apply thin layer of Aquasure+FD and apply patch.
-

Accelerator

For fastest cure (2-3 hours) use GEAR AID Cure Accelerator+X

(Optional use to reduce the curing time from 10 hours to 2-3 hours).

**Instructions for when using
GEAR AID Cure Accelerator+X****— Mixing ratio (by volume)**

1 part GEAR AID Cure Accelerator+X with 4-5 parts Aquasure+FD.

- Mix thoroughly on a non-absorbent surface.
 - Immediately apply the mixture.
-

Application Recommendations**— Conditions**

T Temperature

5 - 35°C.

Relative humidity

There is no recommendation on humidity other than that you need some.

Higher temperatures will give faster cure times than higher humidity.

— Equipment

Firm brush, spatula, plastic spreader or caulking gun, manual or pneumatic.

— Number of coats

Apply in one even coat. If necessary multiple coats can be applied.

— Cleaning of equipment

Isopropyl alcohol, xylene. Clean tools immediately after use. Once cured, the material can only be removed mechanically.

Curing Times

10 - 14 hrs. at 20°C (2 - 3 hrs with Cure Accelerator+X).

(The curing time depends on the ambient temperature and humidity).

Storage

Store original packed tubes in a cool dry place. Storage for opened tubes: Advance contents to tube neck. Wipe clean and cap. Do not leave any air in the tube (moisture will start curing process in the tube too) Keep in a cool dry place or, for extended life, in freezer.

Packing & Size

28g tube in clamshell or loose. 2x7g tubes in clamshell or loose.
250ml OEM tubes. 310ml cartridge for calking gun.

Safety precautions

Wear protective clothing and gloves at all times. Use only in well ventilated areas. In case of insufficient ventilation wear suitable respiratory equipment.

H & P statements

Signal words: Danger, H226; H315; H319; H334; H335; H373.
EUH 204; EUH208. P101; P102; P210; P271; P304+P340;
P342+P311; P370+P378; P405; P501.



Refer to Safety Data Sheet for more detailed information.

Supplementary information

Please note: The European Commission has amended Annex XVII of the REACH Regulation (EC) (new No. 74) with Regulation (EU) 2020/1149, which regulates the restriction of substances/mixtures containing > 0.1 % diisocyanates: **As from 24 August 2023 adequate training is required before industrial or professional use.** More information on the status of the development of the training concept can be found at ISOPA/ALIPA. (<https://www.safeusediisocyanates.eu/diisocyanates-reach>)

Contains isocyanates. See information supplied by the manufacturer. Hazardous Ingredients: Diphenylmethane-4,4'-di-isocyanate, Xylene. Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

Shelf Life and Guarantee

The product has no fixed expiration date. Based on our quality assurance and experience, we guarantee full performance and functionality for 24 months after delivery from our European central warehouse (Batch PD100: valid until September 2026).

When stored properly, AQUASURE FD typically remains fully usable for 5 – 10 years or longer beyond the guaranteed period. We recommend checking product condition before use.

Warranty

The information provided is to the best of our knowledge. However, we, do not assume legal responsibility for use or reliance there on. We disclaim all warranties expressed or implied including the fitness for a particular purpose. Data may be subject to modification without previous notice. Please check validity.

For additional information, please contact:
Gear Aid Europe GmbH,
P.O. Box 11 27, D-29664 Walsrode/ Germany
e-mail: info@gearaid.eu