

RS MaxLiner® System

DN 70 - DN 400

- Including In-House Approval
- KOMO certification according to the new BRL 5217 regulation
- DIBt approvals: Z- 42.3 - 389, Z- 42.3 - 454, Z- 42.3 - 487



RS Technik

A system for success

RS Technik AG is one of the leading suppliers of systems for trenchless rehabilitation in the wastewater sector and can draw on many years of experience in the development and marketing of repair and rehabilitation systems.

The abbreviation „RS“ stands for „Rohrsanierung“ which means “pipe rehabilitation”. For more than 25 years, we have been offering comprehensive solutions for the rehabilitation of pipes and sewers. Our customers are executing companies that are involved in house connection rehabilitation, in-house rehabilitation or in the renovation and repair of main pipes.

In addition to high-quality systems, techniques, products and materials, we also offer comprehensive advice to our customers. We organise theoretical and practical training courses and develop tailor-made solutions. RS Technik is your partner during all phases of the project.

RS Technik AG

Your competent partner for trenchless sewer- and pipe rehabilitation systems.

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RS LinerGun® Inversion device

Properties

Small and compact

Flexible application

No liner length limitation, max. length only
depending on material and processing time

Liner inversion via compressed air

Heating possible with water or steam

Time-saving: Inversion during the impregnation
process calibration possible

Robust and reliable, easy handling,
fully maintenance-free



control unit



attachment rings



basic frame



Technical specifications

Range of application: DN 50 - DN 300

Accessories: RS Control unit

Attachment rings DN 150 & DN 200, air hoses,
collapsible basic frame

(also usable with the manual RS calibration hose)

Dimensions (L x W x H):

With frame: 900 x 500 x 750 mm

Without frame : 500 x 400 x 450 mm

RS LinerCannon®

Inversion device

Properties

Pressure drum in very light design

Material: stainless steel, sand-blasted or glass bead blasted silver matt

Liner inversion via compressed air

Heating with steam or water possible

Available in different sizes: 600, 800, 1000

Mobile structure with transport wheels and carrying handles

Viewing window above the steering wheel and
temperature display on the hopper

Hand wheel with parking brake/locking pin

Shaft with loop for retaining strap

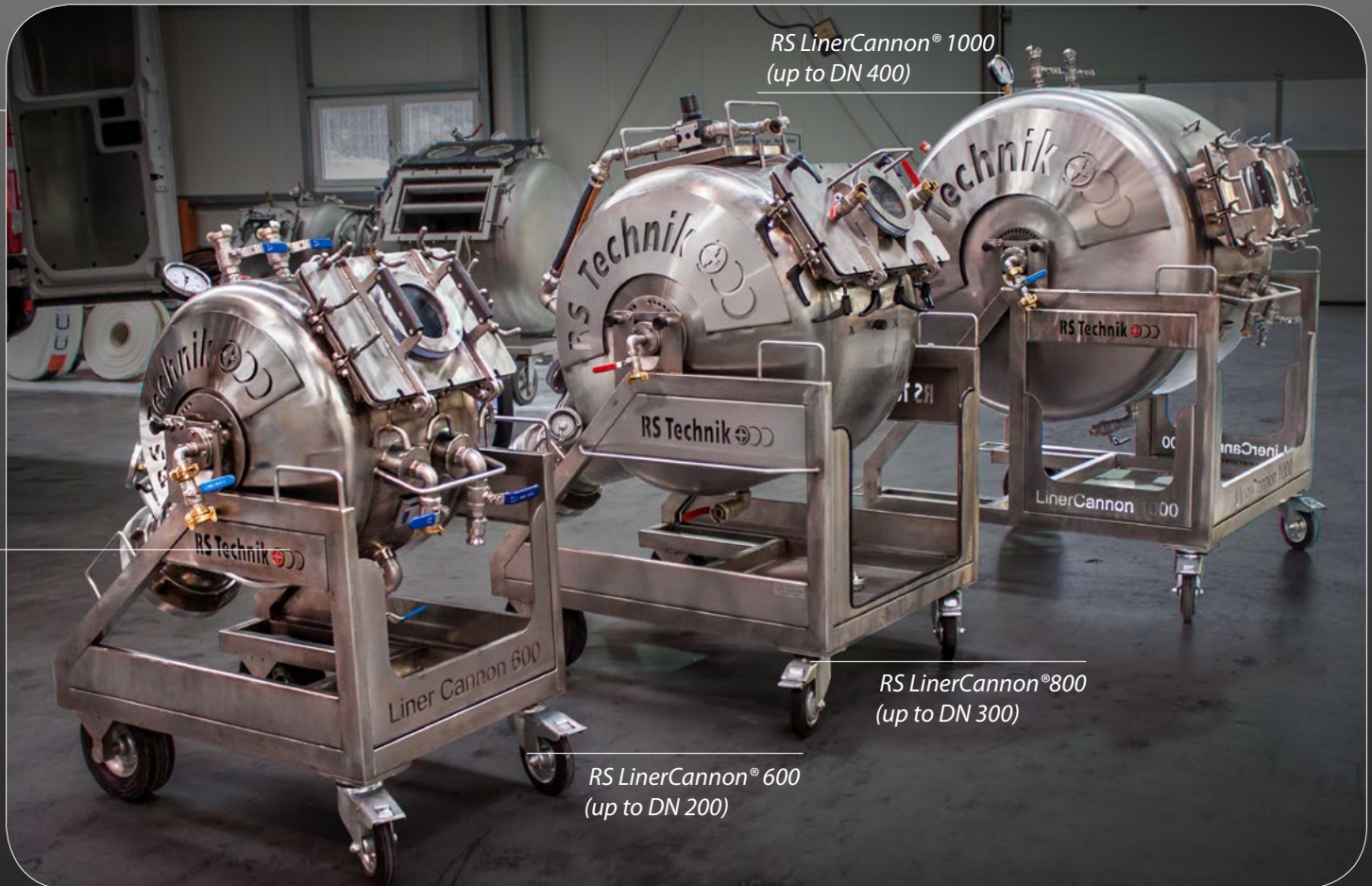
Safety valve 1.5 bar

swivel frame



pressure indication





temperature display

Technical specifications

- 1" water outlet
- 2 x air connection to drum,
- 3/4" socket, 1/2" pressure gauge
- Connection Storz coupling for attachment ring (D 600 + D 800: 8", D 1000: 10")

RS Calibration roller DN 300

Properties

- Two electrically driven, synchronous specially coated rollers
- Forward and reverse drive
- Infinitely variable speed control
- Manually height-adjustable upper calibration roller
- Simple, millimetre-accurate gap adjustment via a setting wheel
- Simple reading of the gap setting via the setting wheel display
- On/Off switch, speed control and direction of rotation are achieved via switches on the unit
- EMERGENCY OFF switch
- Transparent safety flap with stop function
- Also available as a manual version and DN 400





operating unit



*RS calibration roller
without frame*



Technical specifications

230 V connection

Made of high quality stainless steel

Sandblasted / glass bead blasted for matting
the surface

Can also be used with RS LinerGun® and
RS Manual calibration roller

For liner dimensions up to DN 300

RS CMU Mixing unit

Properties

- Material:** stainless steel (tank, mechanics)
Aluminium (lid)
Hard anodised aluminium (pumps, valves)
Partly galvanized steel
- Control:** Pneumatic, volume control via pneumatic stroke
preselection counter
Operating lever with 3 positions
Mixing - Stop - Circulate
Hardener selection lever for selection of
tank 1 or 2
- Safety:** Tank level switch, pressure limitation pneumatics
to 8/5 bar, safety control lever on mixing head,
hoses made of resistant material, pressure
resistant, fuse against mixing lever misuse

Mixing head: For static mixers, with start/stop lever



operating lever



RS CMU



Technical specifications

Dimensions:	L 750 mm, W 480 mm, H 1250 mm
Weight:	approx. 160 kg empty
Tank volume:	Tank 1: 60 litres Tank 2: 30 litres Tank 3: 15 litres
Conveying capacity:	Approx. 7.5 kg/min/250 g mixture per double stroke
Pumps:	3 piston dosing pumps patented, design as submersible pumps in tanks, double-acting, with pneumatic control, seals / O-rings resistant to materials
Drive:	pneumatic cylinder, operating pressure 5 bar

RS CCM[®] Mixing unit

10 kg | 18 kg

Properties

Siemens touch panel

Conveying capacity 10 kg/min | 18 kg/min

External vacuum pump

Climate system for resin and hardener
(heating coil system available as an option)

External filling device with return line for
circulation directly in the IBCs

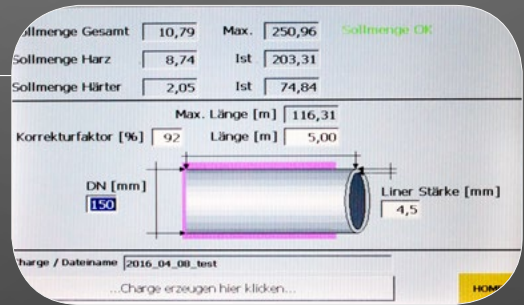
Complete documentation of the mixing
parameters, transfer via USB



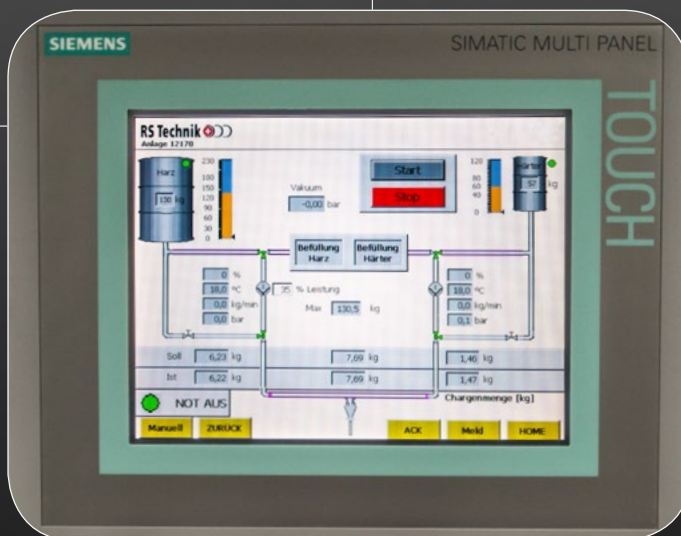
remote maintenance

operating panel





SPS control



Siemens Touch Panel



heating coils
optionally available

Progressive cavity pump for resin/hardener

Filling lances for refuelling the system from IBC or drum

Mixing head, filling hoses & spare parts set (stators etc.) included

RS HotBox[®] 60 | 105

Mobile heating system

Properties

Complete heating system with digital control

Fueled with diesel, supply 230V

Small, mobile and lightweight

Drivable

Throughput or circulating mode possible

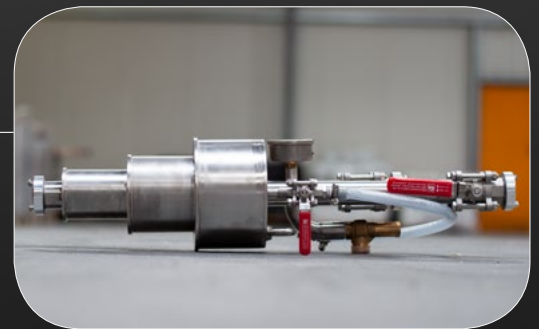


Operating element



Water circulating pump

Universal water end plug



Technical specifications

Heating capacity: 60 kW | 105 kW, 18 l tank

1 water circulation pump: 8000 l / h, 6 bar

1 universal water end plug: DN 100 - DN 300, stainless steel, pressure relief valve 0.9 bar

3 m + 10 m hot water hose 1"

10 m pressure suction hose 1"

Achievable water temperature: 95 °C

Dimension (L x W x H):

HB 60: 800 x 450 x 747 mm | HB 105: 800 x 660 x 975 mm

RS MicroCutter® incl. accessories

Properties

For internal pipe diameter 80 mm to 200 mm

Bend mobility of up to 90°

Can be clamped in the tube (exact milling)

For precise work with integrated part-turn gearbox

Purely pneumatically operated

Scope of delivery: Plastic box incl. RS MicroCutter® with
pneumatic motor and 20 m supply hose,

Operating handle, camera holder, accessories for inner
pipe diameters 80 mm - 200 mm and the necessary tools



*Colourcamera mC30Duo
and RS MicroCutter®*



Colorkamera mC30Duo Set

for pipes from 15 - 200 mm

Camera head diameter: 29 mm and 13 mm

Monitor 5.6" TFT-LCD with recorder in carbon housing

VA reel with parking brake

5m push-pull cable on inner reel basket

30 m/ 6.7 mm, glass fibre tape on outer reel basket

Control unit with infinitely variable light regulation

Meter counter with electronic video insertion

Battery for over 2h operating time



Camera holder incl. air nozzle

Operating element



Technical specifications

Dimensions: L x Ø = 290 mm x 63 mm

Radial clamping stroke: 27 mm

Part-turn gearbox: Reduction ratio $i = 1 : 2.36$

Radial deflection: 92° of the milling head

Radial stroke: 110 mm

Weight MicroCutter: 2.8 kg
(without pneumatic motor and accessories)

Weight of equipment: 19,5 kg

Air requirement: min. 700 l / min. at 8 - 10 bar

Motor power: approx. 0.37 kW at 22,000 rpm.

RS Steam Unit

Steam generator

Properties

Built-in diesel tank incl. diesel burner

Mobile or installation in vehicle/trailer possible

Polyethylene feed water tank available

Electronic level control

High-quality feed water pump

Incl. control panel





*Digital
temperature control*



Control devices

Technical specifications

Capacity from 100 kg/ h - 150 kg/ h

220 V / 50 Hz

5 m + 10 m + 20 m steam hoses

1 lance 1/2", 1 lance 3/4"

2 end nozzles for rehabilitation with open end
up to DN 200

1 end nozzle for rehabilitation with open end from DN 200

Dimensions (L x W x H): 1100 x 600 x 1400 mm

RS Steam trailer

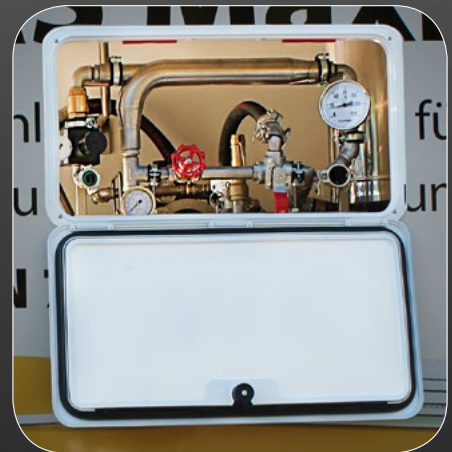
Properties

Closed floor made of slip-resistant screen printing plates, sealed

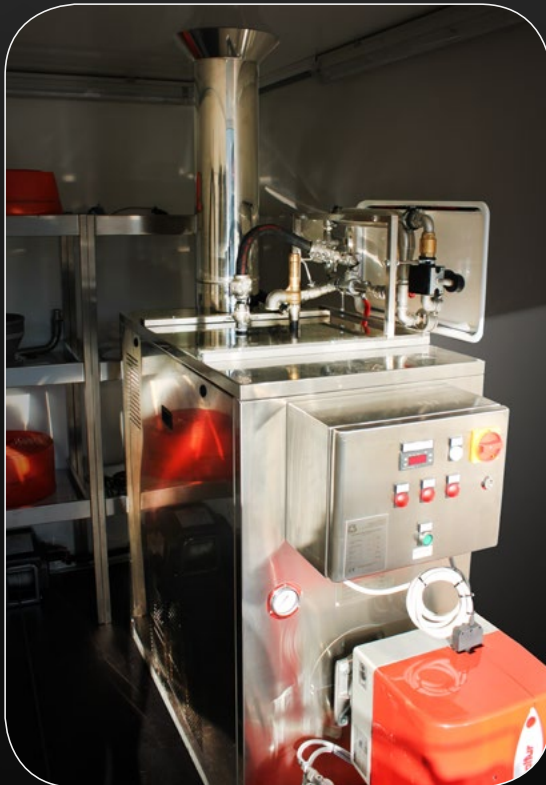
Walls and roof in plywood, waterproof glued with special plastic coating

Hinged doors incl. door stop, 270° reversible, lockable via espagnolette lock

Powder-coated steel corner reinforcements for added stability



Control panel externally operable



Steam Unit 150

Edging profiles at door opening and rain bar above the door

Torsion-resistant rear portal

Screwed and galvanized german brand chassis

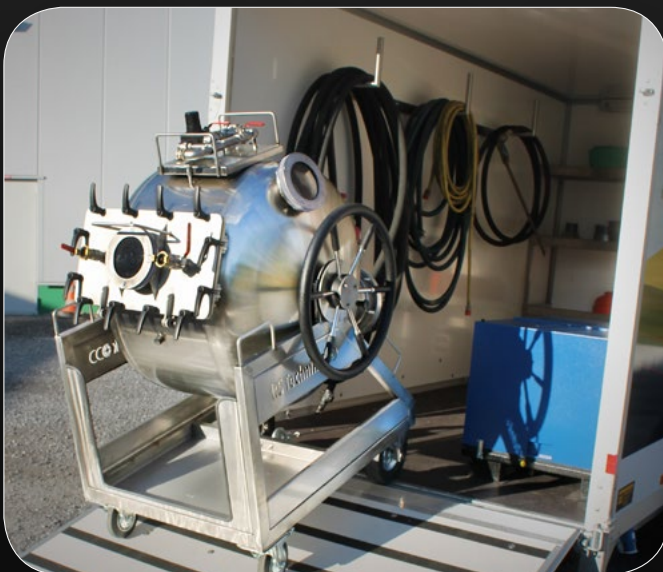
Original Humbaur axle

Maintenance-free rubber spring axles with independent wheel suspension

Braked with automatic reversing



*RS LinerCannon® 600-1000
optionally available*



Technical Specifications

Loading height approx. 530 mm

Permissible total weight: 2500 kg

Payload: approx. 1550 kg

Inner box dimensions: 4010 x 1810 x 2000 mm

RS MaxLiner® Rehabilitation vehicles

Vehicle equipment

< 7,5 t

RS CCM® mixing plant incl. Siemens touch panel (conveying capacity 18 kg/min) incl.

air conditioning system, SPS system & standard mixing head

External vacuum pump V-VTN 16 (pumping speed: 16m³/h)

Incl. RS calibration roller table DN 300, electrically operated with drum motors

built-in underframe

External filling device

One progressive cavity pump for each, resin & hardener

Tanks conforming to machine guidelines (Resin 260 L | Hardener 122 L)

Generator power: 5 kW





Vehicle equipment

12 t

RS CCM® mixing system incl. Siemens touch panel with remote maintenance incl. air conditioning system & standard mixing head

(capacity of resin mixing plant 18 Kg/min)

External vacuum pump V-VTN16 (pumping speed: 16 m³/h)

RS calibration roller table DN 300/ DN 400, electrically operated with drum motors & underframe

External filling device with return line

One progressive cavity pump for each, resin & hardener

Tanks conforming to machine guidelines (Resin 480 L | Hardener 160 L)

Version with one or two hardener tanks possible

RS MaxLiner® Rehabilitation vehicles

Vehicle equipment

18 t

RS CCM® mixing system incl. Siemens touch panel with remote maintenance incl. climate system, PLC system & standard mixing head (output 18 kg/min)

External vacuum pump V-VTN16 (pumping speed 16m³/h)

RS Calibrating roller table DN 300 /DN 400, electrically operated with drum motors & underframe

External filling device with return line

One progressive pump cavity for each, resin & hardener

Tanks conforming to machine guidelines (Resin 480 L | Hardener 160 L)

Version with one or two hardener tanks possible

Social room incl. kitchenette, dishwasher/washbasin, storage cupboards & lounge

storage cupboards





RS CCM® incl. calibration roller



*lounge
incl. sink unit, worktop,
microwave and refrigerator*



RS MaxLiner[®] Hose liner

Fix

Seamless, flexible polyester fibre hose with PU coating

Can be bent up to 90°, dimension change possible

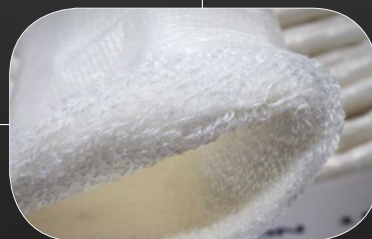
For dimensional changes and bends a calibration hose is to be used

Cold hardening and hot hardening with water

Available from DN 70 to DN 200



Fix



Flex

Flexible needle felt liner with PU coating

Can be bent up to 45°

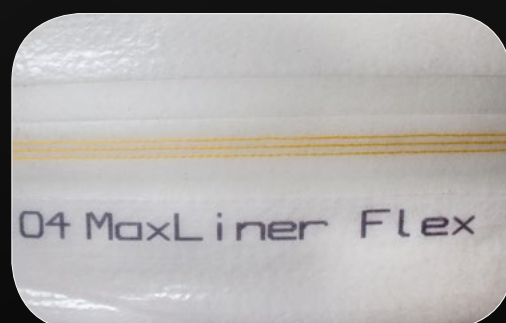
Wall thickness stable needle felt material

(ensures 3 mm minimum wall thickness)

Cold hardening and hot hardening with water or steam

Available from DN 70 to DN 400

Flex



Flex S



Flex S

- Highly flexible needle felt liner with PU coating
- Can be bent up to 90°, dimension change possible
- Installations with closed end can also be implemented for dimension changes
- Wall thickness stable needle felt material
(ensures 3 mm minimum wall thickness)
- Cold hardening and hot hardening with water or steam
- Available from DN 70 to DN 400

Flex 4D



Flex 4 D

- Extremely flexible needle felt liner with PU coating
- Can be bent up to 90°, up to 4 dimension changes possible (DN 150 - DN 250)
- Installations with closed end can also be implemented for dimension changes
- Wall thickness stable needle felt material
(ensures 3 mm minimum wall thickness)
- Hot hardening with water or steam
- Available from DN 75 to DN 400

Superflex

- Highly flexible needle felt liner with PU coating
- Can be bent up to 90°, dimension change possible
- Installations with closed end can also be implemented for dimension changes
- Wall thickness stable needle felt material
(ensures 4.5 mm minimum wall thickness)
- Cold hardening and hot hardening with water or steam
- Available from DN 70 to DN 400

RS Calibration hoses

Lite

PVC-coated fabric hose with overlapping welded seam

Heatable up to a maximum of 40 °C

Can bent up to 90°

Available from DN 80 to DN 200

LiteTube

PVC-coated fabric hose with sewn and welded seam

Heatable up to a maximum of 80 °C

Can be bent up to 90°

Available from DN 100 to DN 300

LitePlus

PVC-coated fabric hose with welded seam

Heatable up to a maximum of 80° C

Can be bent up to 90°

Available from DN 100 to DN 300

LiteBlue

PVC-coated fabric hose with sewn and welded seam

Heatable up to a maximum of 80 °C

Extra flexible with lightweight fabric

Available from DN 100 to DN 300

HotPlus

PVC coated fabric hose with welded surface seam

Heatable up to a maximum of 80 °C

Not bendable

Available from DN 200 to DN 400, further dimensions upon request

Calibration hose
LiteBlue



Calibration hose
HotPlus





Preliner

PE film tube with welded seam

Serves as an outer film to protect the liner from ground water and seepage water

Preliner



PU-Outer hose

Thin polyester felt layer with PU coating

Serves as preliner and DIBt-approved integrated external coating

Prevents excess resin in the inlets

PU-Outer hose



RS MaxPox[®] two-component epoxy resin systems

MaxPox[®] 15M

Resin component for processing with hardeners 20, 40, 70 and 120

Solvent- and filler-free



MaxPox[®] 20

Hardener component for processing with MaxPox[®] 15M resin

Working time at 20 °C approx. 25 min.

Suitable for cold hardening, hot hardening with water or steam



MaxPox[®] 40

Hardener component for processing with the resin MaxPox[®] 15M

Working time at 20 °C approx. 40 min.

Suitable for cold hardening, hot hardening with water or steam



MaxPox[®] 70

Hardener component for processing with MaxPox[®] 15M resin

Working time at 20 °C approx. 70 min.

Suitable for cold hardening, hot hardening with water or steam





MaxPox® 120

Hardener component for processing with MaxPox® 15M resin

Working time at 20 °C approx. 70 min.

Suitable for cold hardening, hot hardening with water or steam

MaxPox® Fill

Filled and yellow coloured two-component epoxy resin system

High viscosity for good grip in the carrier material

Application time at 20 °C approx. 30/60/90 min (depending on hardener components)

Hot and cold hardening possible

MaxPox® Thermo

Red coloured two-component epoxy resin system

High temperature resistance up to 90 °C

Long processing time at 20 °C approx. 16 h

Not suitable for cold hardening, hot hardening with water or steam

RS MaxPatch® Consumables



*RS MaxPatch®
Comp. A 2K Fast*



*RS MaxPatch®
Comp. A Winter*



*RS MaxPatch®
Comp. A Summer*



*RS MaxPatch®
Comp. C*

Features & Benefits

Silicate-isocyanate resin with very good adhesion properties and chemical and thermal resistance

Available as three- or two-component system

Adjustment of the processing time by targeted dosing of the C-component

Optimum adaptation to ambient conditions

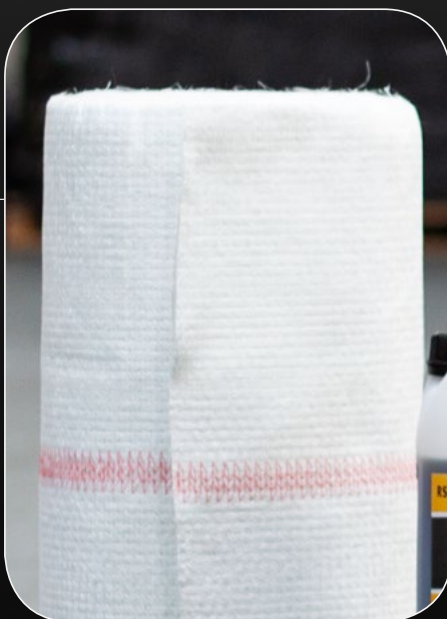


*RS MaxPatch®
Comp. B*



*RS MaxPatch®
Comp. A*

*RS MaxPatch®
Glass mat*



RS MaxPatch® Glass mats

RS MaxPatch Advantex ECR glass

Glass mats rolls 330 mm/ 415 mm/ 510 mm and
1300 mm wide

Basis weights: 1086 g/ m² or 1387 g/ m²



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