

World of pipe repair

Technologies and materials for repairing pipes



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Pipe repair from inside the pipe

SECTIONAL REPAIR (up to 5 m in length)

- Wet Method

- Silicate Resins
- Fiberglass fabric
- Inflatable packers
- Accessories



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Pipe repair from inside the pipe

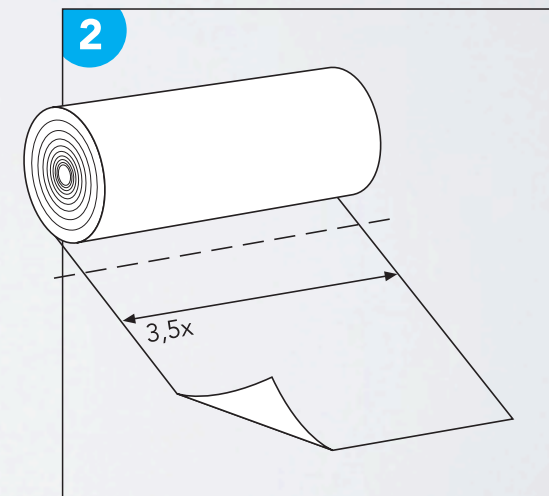
SECTIONAL REPAIR (up to 5 m)

- Wet Method

- Ensure traffic safety
- Ensure work safety
- Clean working site

Cut the fiberglass material:

- 3,5 x the length of inside diameter of pipe
- 3 x the length of surface you want to repair

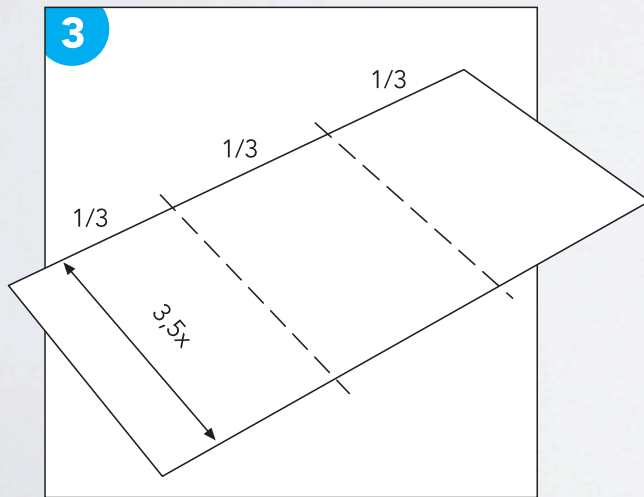


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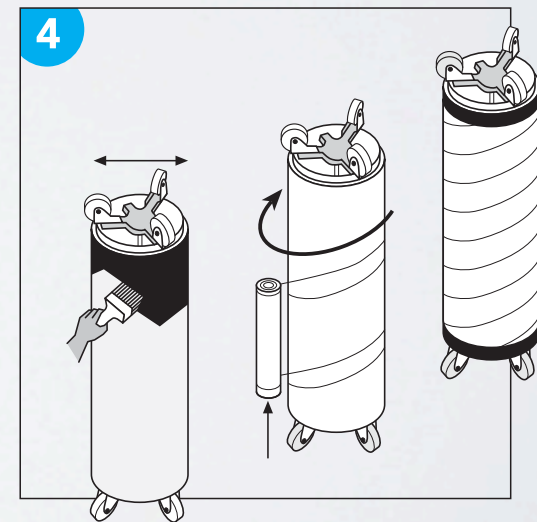
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The width of fiberglass = $3,5 \times \emptyset$
Length of fiberglass = 3 x the length of repair

Divide the length of Fiberglass on 3 parts



Prepaire Packer
Grease packer with seperation grease
Wrap the Packer 3-times with Strech folie or with the construcion folie.

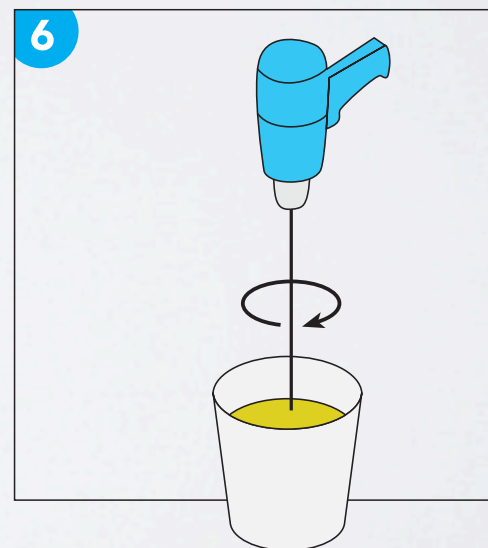
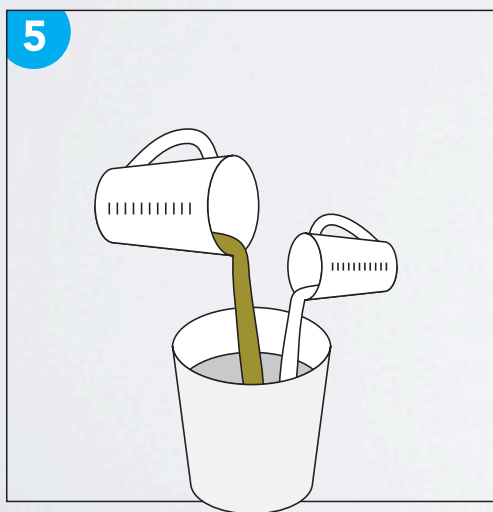


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Mix component B and A in the ratio 2:1
The consumption of resin is = 1,6l/m² of
fiberglass

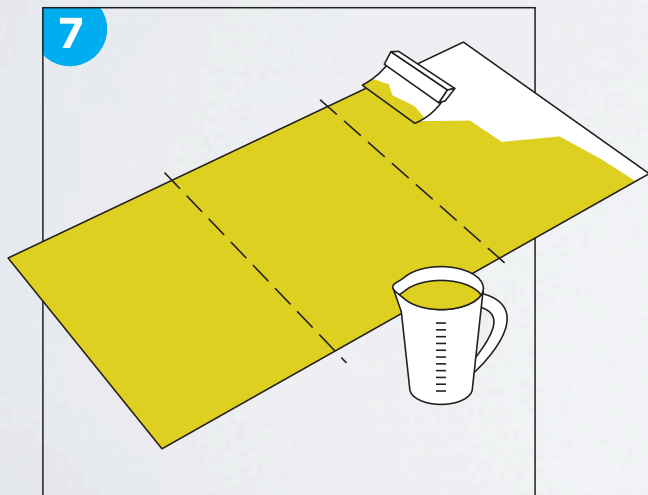
Mix the component A and B
Do not exceed 10 l of mixture



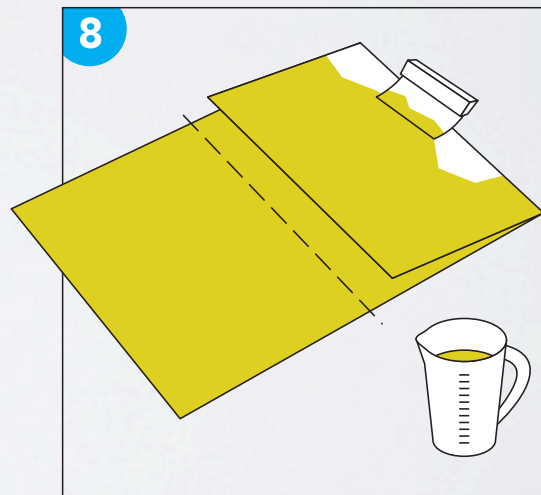
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Impegnate the upper side of fiberglass



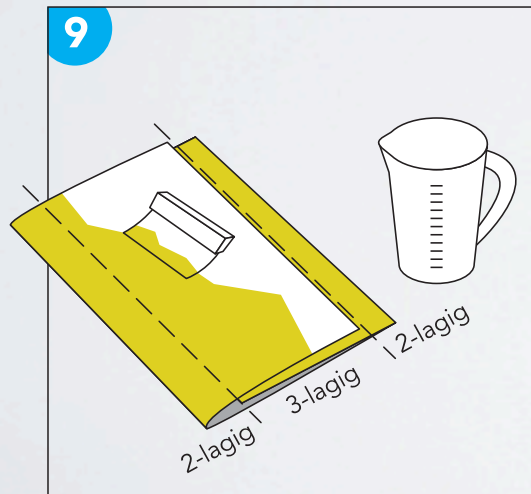
Fold fiberglass and impregnate



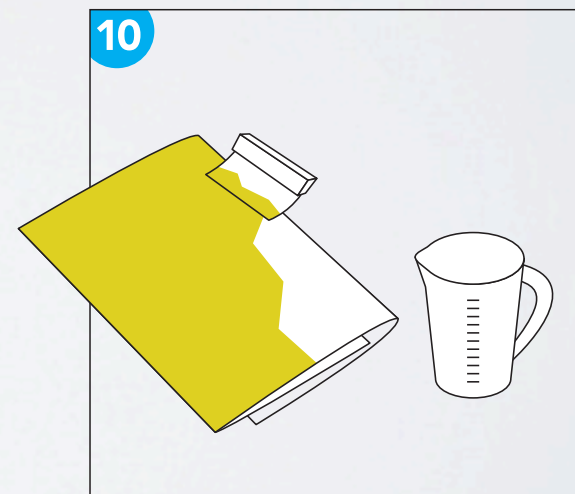
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Fold the fiberglass for the second time and impregnate



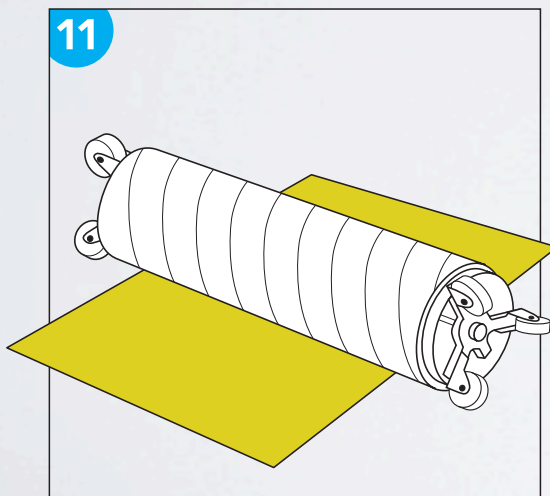
Turn around fiberglass and impregnate the rest of the fiberglass.
Now the whole fiberglass surface is impregnated.



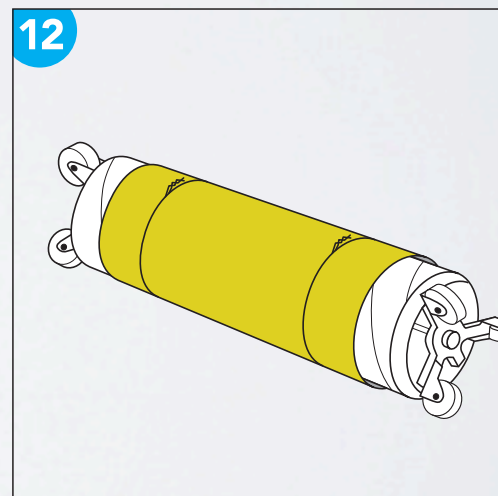
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Wrap/turn the impregnated fiberglass on the prepared packer.



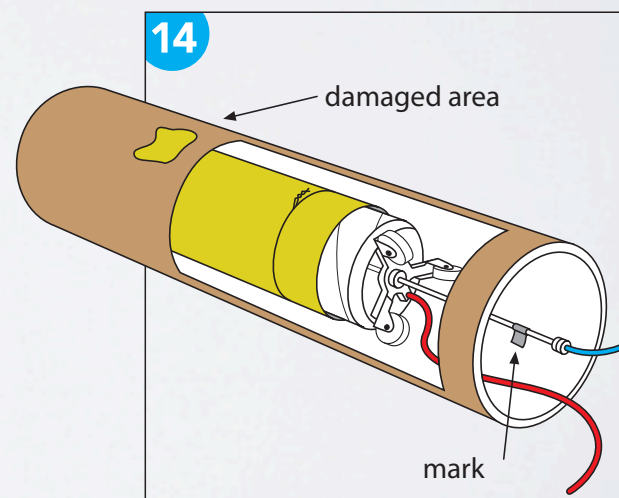
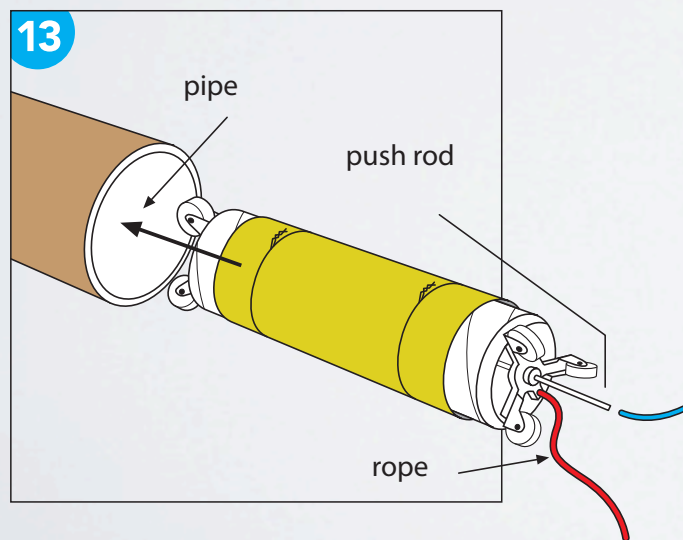
Secure the wrapped fiberglass with wire.
Do not tighten the wire!



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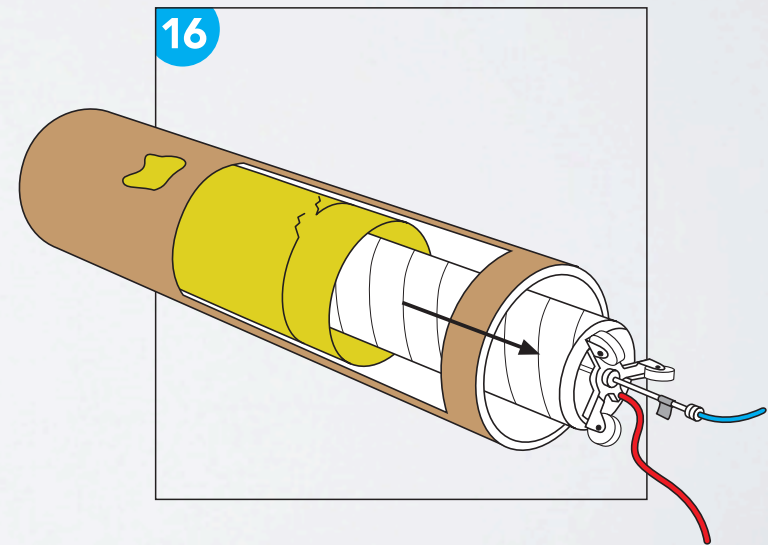
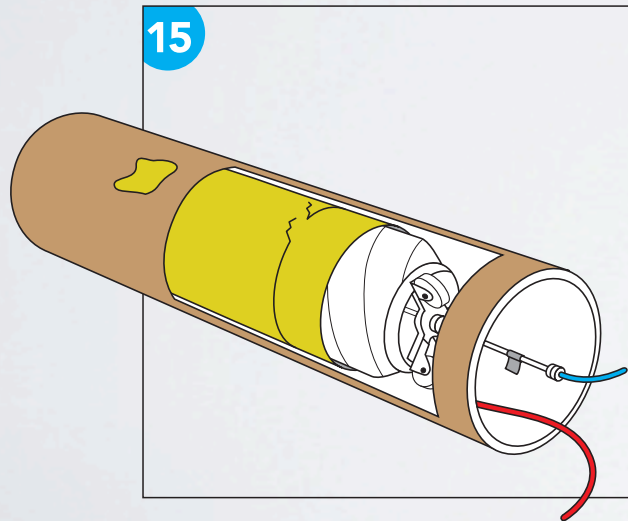
With push rod drive the prepared packer and impregnated fiberglass into the pipe. Set the middle of the packer (contact area) to the point in the pipe you want to repair.



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When everything is prepared and positioned correctly, inflate the packer. Compression force will press the impregnated fiberglass on the damaged point. After curing time, deflate the packer and pull it out.

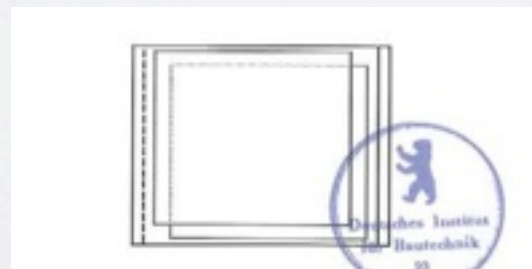
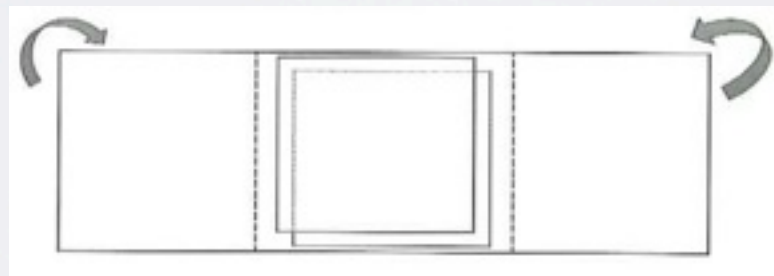


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Three ply setup



Multiply setup



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Calculation for the material length and the necessary quantity of the resin.

Pipe DN	Material			Resin		
	Length * cm	Width cm	Surface m ²	Resin mixture ** Litter	Comp. A glass Litter	Comp. B resin Litter
100	35 cm	127 cm	0,45 m ²	0,75 l	0,25 l	0,50 l
125	45 cm	127 cm	0,55 m ²	0,90 l	0,30 l	0,60 l
150	55 cm	127 cm	0,70 m ²	1,05 l	0,35 l	0,70 l
200	70 cm	127 cm	0,90 m ²	1,50 l	0,50 l	1,00 l
250	90 cm	127 cm	1,10 m ²	1,80 l	0,60 l	1,20 l
300	110 cm	127 cm	1,50 m ²	2,40 l	0,80 l	1,60 l
400	140 cm	127 cm	1,80 m ²	2,85 l	0,95 l	1,90 l
500	175 cm	127 cm	2,20 m ²	3,60 l	1,20 l	2,40 l
600	210 cm	127 cm	2,70 m ²	4,20 l	1,40 l	2,80 l
700	250 cm	127 cm	3,10 m ²	5,10 l	1,70 l	3,40 l

* The mat length = pipe diameter x 3,5

** specific resin requirements = 1,6 l/m²

*** mixing ratio Comp. A : Comp. B = 1:2