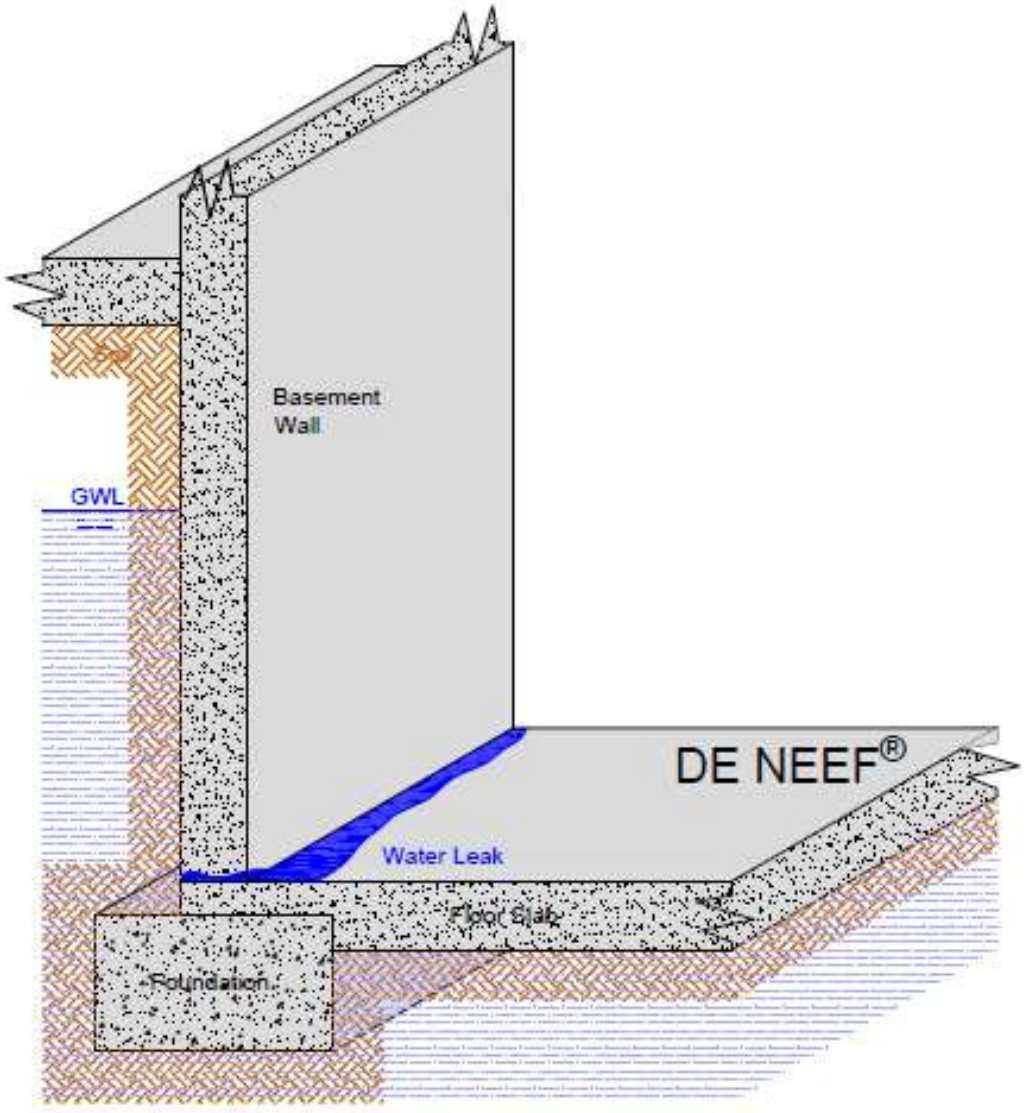
gcp applied technologies

DE NEEF®

Leak sealing injections

A construction products technologies company

Floor / Wall injection



- Leaking construction joint Floor/wall.
- Problem is addressed through injection with HA Flex LV/SLV AF and max. 5% HA Flex cat AF.
- HA Flex LV/SVL AF is an hydrophobic PU resin which reacts in contact with water, if no water is seen at the moment of injection a pre-injection with water has to be done.

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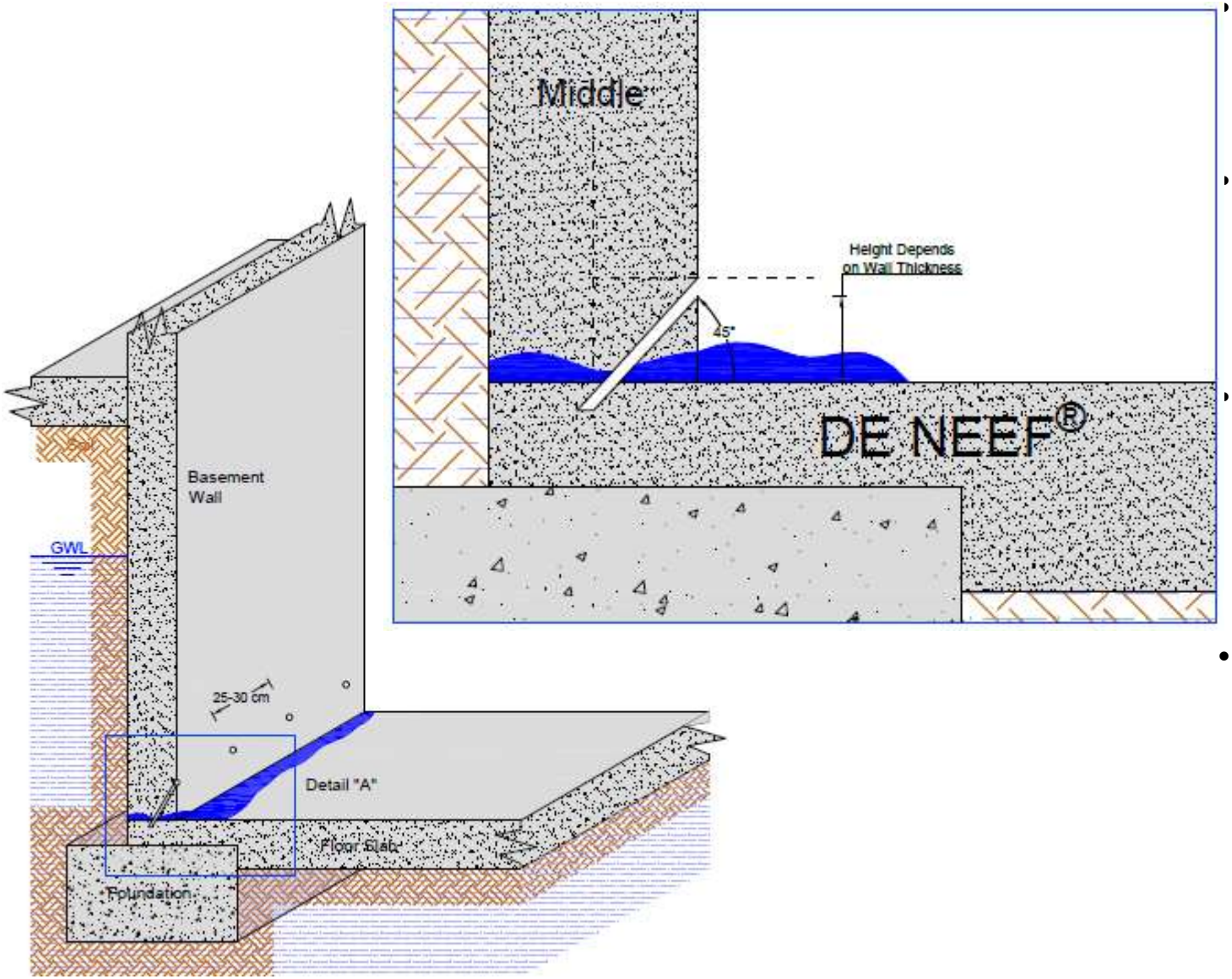
Floor / Wall injection



- A hole of ø 14mm is drilled towards the center of the wall in an angle of 45°.
- The drilled hole is drilled in the wall into the floor slab to cross to construction joint.
- Drill dust may remain in the hole and obstruct, the dust is removed by blowing air in the hole.
- When there is water pressure present, water may come out of the drilled hole, this indicates that there is a connection with the problem.

!!! The diameter of the drilled hole may vary depending on the circumstances and used packer !!!

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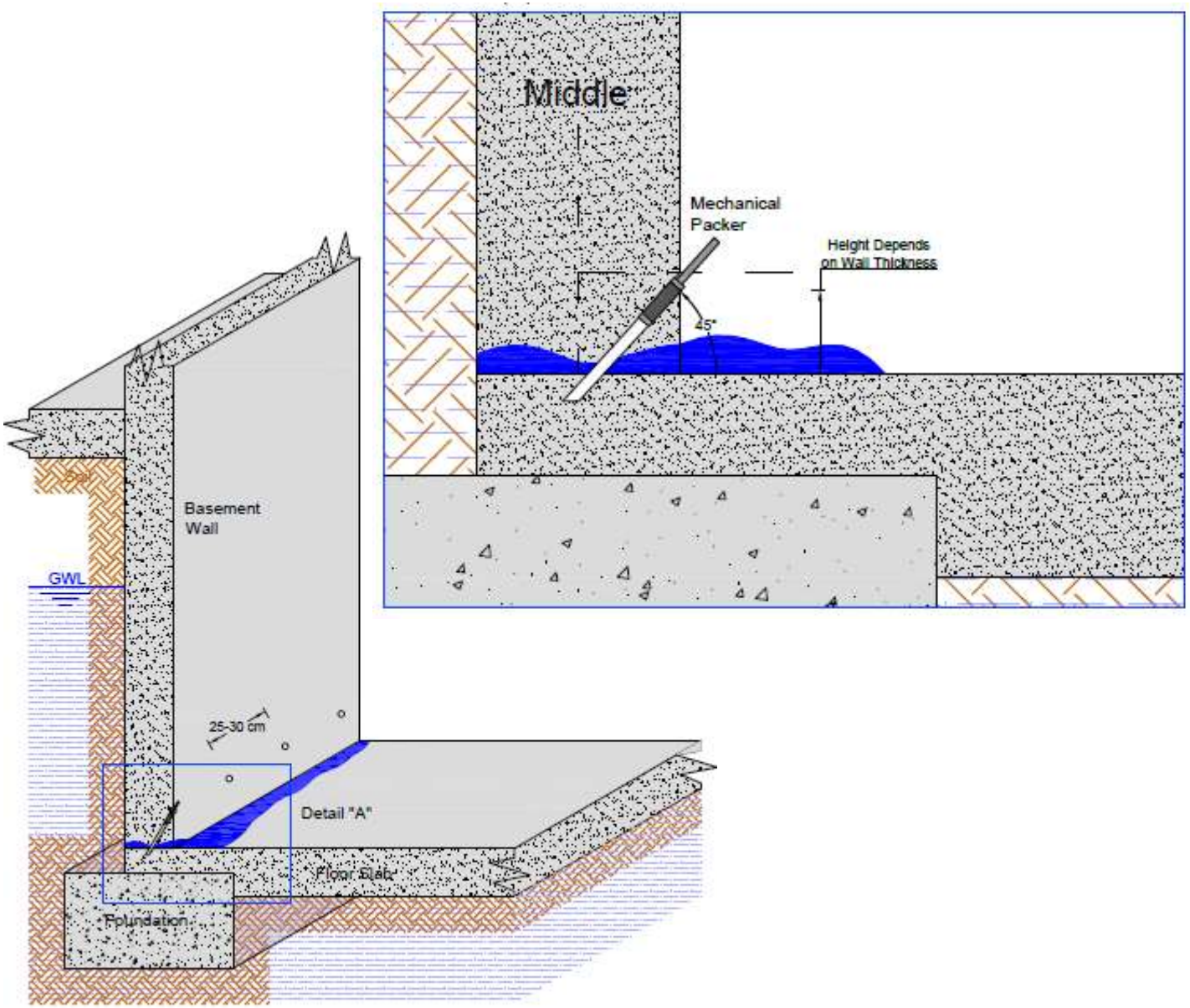
Floor / Wall injection



- A ø 13mm packer in inserted into the hole.
- The packer is inserted up to 2/3 of its length.
- The packer is tightened using a wrench until the packer is fixed sufficiently into the hole.
- If the joint is only moist without visible water, pre-inject water through the packers using a separate pump

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Floor / Wall injection

Temperature	HA Flex Cat AF %F	Start reaction	End reaction	Expansion
At 5°C	1%	Approx. 3'30"	Approx.17'00"	Approx. 12V
	2%	Approx. 2'15"	Approx. 8'30"	Approx. 14V
	5%	Approx. 55"	Approx. 4'00"	Approx. 16V
At 15°C	1%	Approx. 2'10"	Approx. 10'50"	Approx. 14V
	2%	Approx. 1'25"	Approx. 7'00"	Approx. 14V
	5%	Approx. 40"	Approx. 3'05"	Approx. 16V
At 25°C	1%	Approx. 1'30"	Approx. 9'00"	Approx. 14V
	2%	Approx. 1'05"	Approx. 5'35"	Approx. 17V
	5%	Approx. 35"	Approx. 2'10"	Approx. 17V
At 30°C	1%	Approx. 1'05"	Approx. 7'30"	Approx. 14V
	2%	Approx. 45"	Approx. 4'40"	Approx. 16V
	5%	Approx. 25"	Approx. 1'45"	Approx. 17V
At 35°C	1%	Approx. 55"	Approx. 6'45"	Approx. 15V
	2%	Approx. 40"	Approx. 4'00"	Approx. 17V
	5%	Approx. 20"	Approx. 1'35"	Approx. 18V

https://gcpat.uk/en-gb/solutions/products/de-neef-waterproofing-injection-solutions/de-neef-ha-flex-lv-af

Temperature	HA Flex Cat AF %	Start reaction	End reaction	Expansion
At 5°C	2	Approx. 1'30"	Approx. 6'30"	Approx. 14V
	5	Approx. 50"	Approx. 3'25"	Approx. 16V
At 15°C	2	Approx. 1'10"	Approx. 5'10"	Approx. 16V
	5	Approx. 35"	Approx. 2'35"	Approx. 16V
At 25°C	2	Approx. 1'00"	Approx. 4'30"	Approx. 16V
	5	Approx. 35"	Approx. 2'20"	Approx. 17V
At 30°C	2	Approx. 50"	Approx. 4"20"	Approx. 16V
	5	Approx. 30"	Approx. 2'00"	Approx. 17V
At 35°C	2	Approx. 50"	Approx. 3'35"	Approx. 17V
	5	Approx. 25"	Approx. 1'45"	Approx. 18V

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- Prepare the pump and the resin HA Flex LV/SLV AF with HA Flex CAT AF.
- Share HA Flex Cat AF before adding
- The catalyst dosage and reaction time depends on the application and temperature
- Perform a cup test before the injection to have an idea about the reaction time.
- Don’t mix more resin than needed within 4 hrs.

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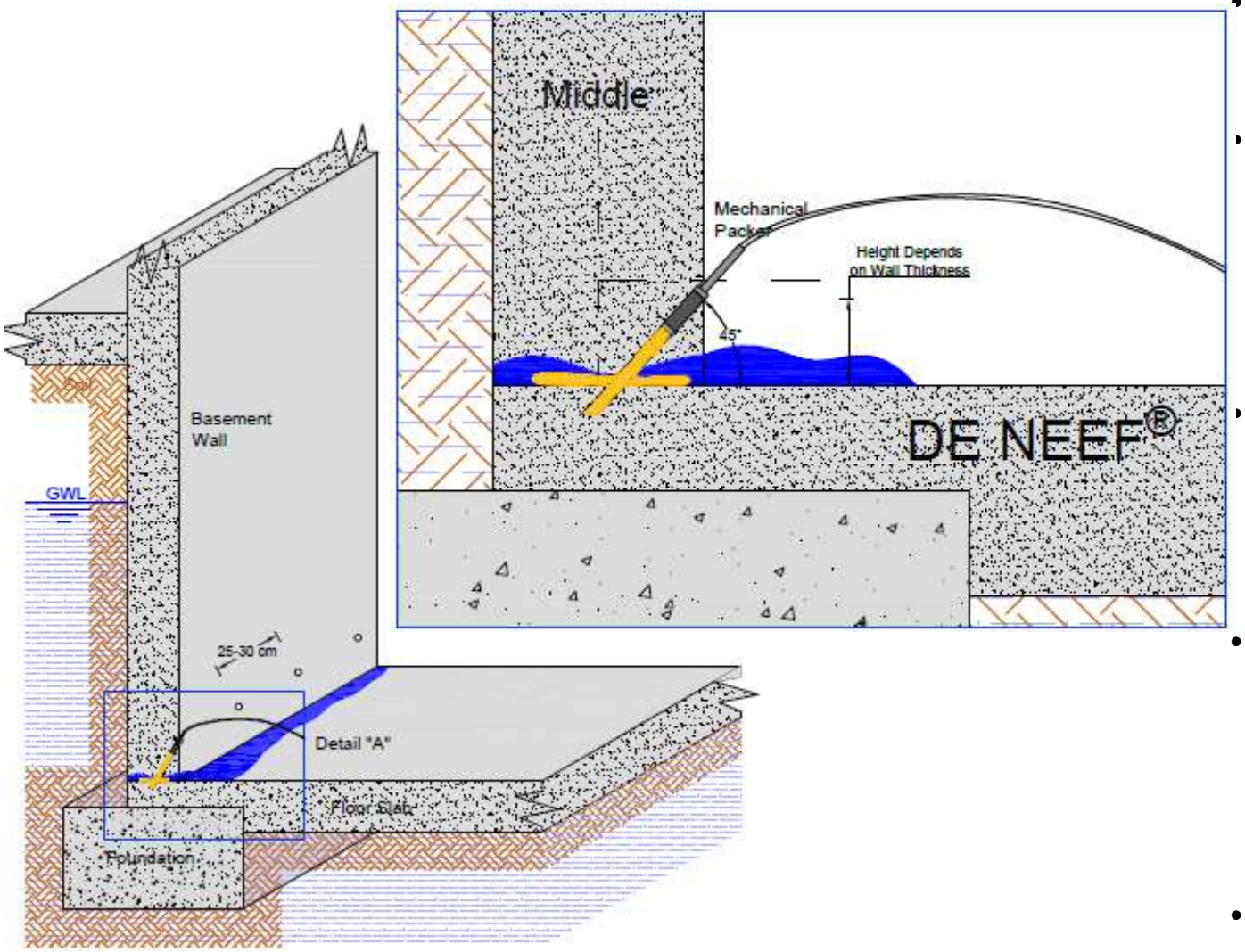
Floor / Wall injection



- The injection hose is connected onto the 1st packer.
- Start the injection with the lowest possible pressure and slightly increase until consumption of the resin is seen.
- Water will come out of the joint, followed by foaming resin, inject until resin is coming out of the next packer.
- When resin is seen at the next packer, connect the injection hose at the 2nd packer and repeat the procedure.
- The injection pressure may vary from 3 to 200 bars.

!!! Too high injection pressure might damage the concrete !!!
Rule of thumb: Concrete strength x 10
---------- = Maximum pressure
3

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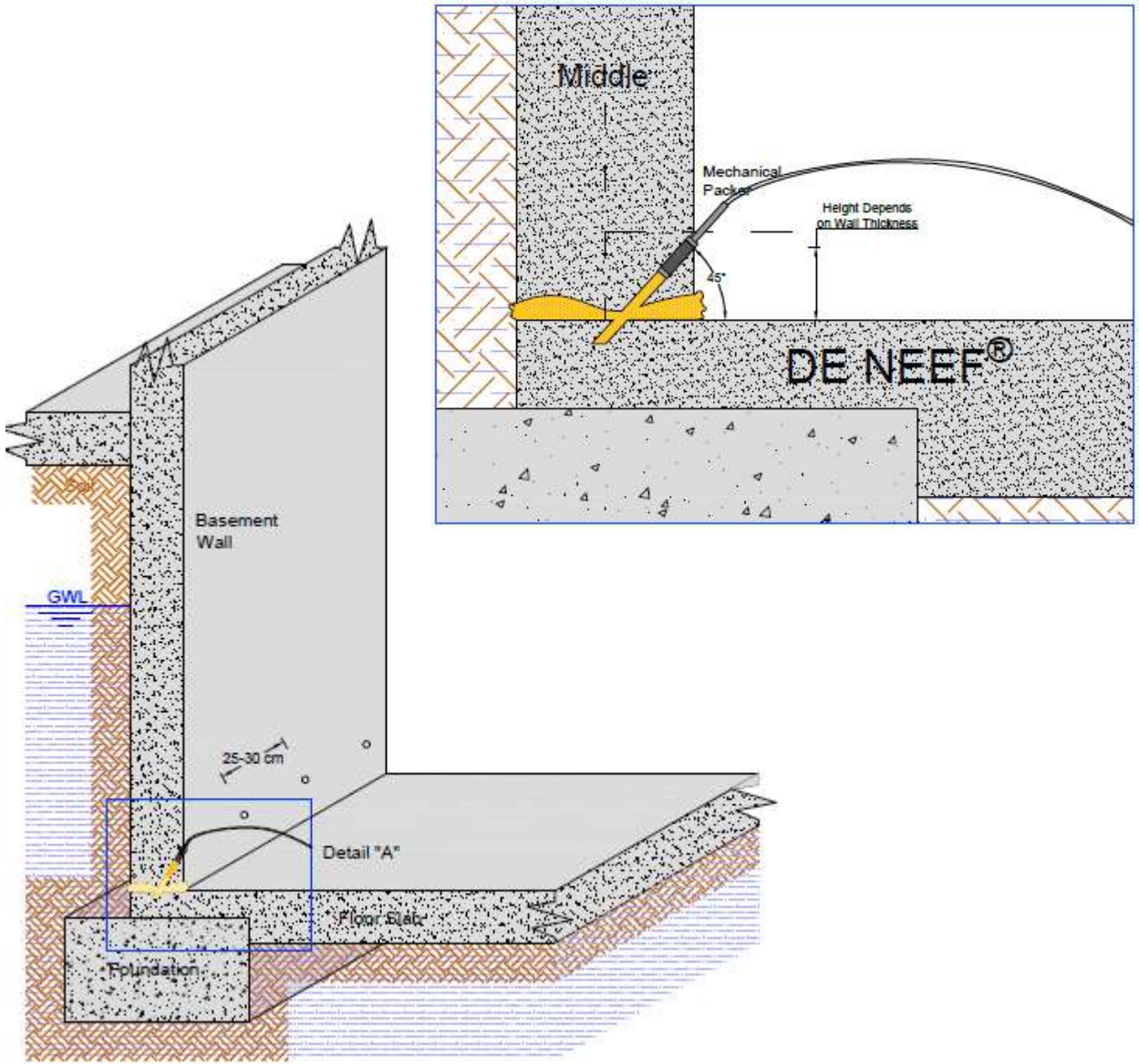

- When there is no consumption of the resin and pressure is raising quickly it means there is no connection with the crack. Stop the injection at this packer and drill another hole left or right from it.
- When pure resin is coming out of the crack, stop the injection for a minute and let the resin polymerize first.
- When there is too much water and water pressure use fast setting mortar, wooden wedges and rags to reduce the flow of the water prior to the injection.
- After injecting a few packers, return to the first packer and inject again (if possible), this to create complete confinement of the resin.

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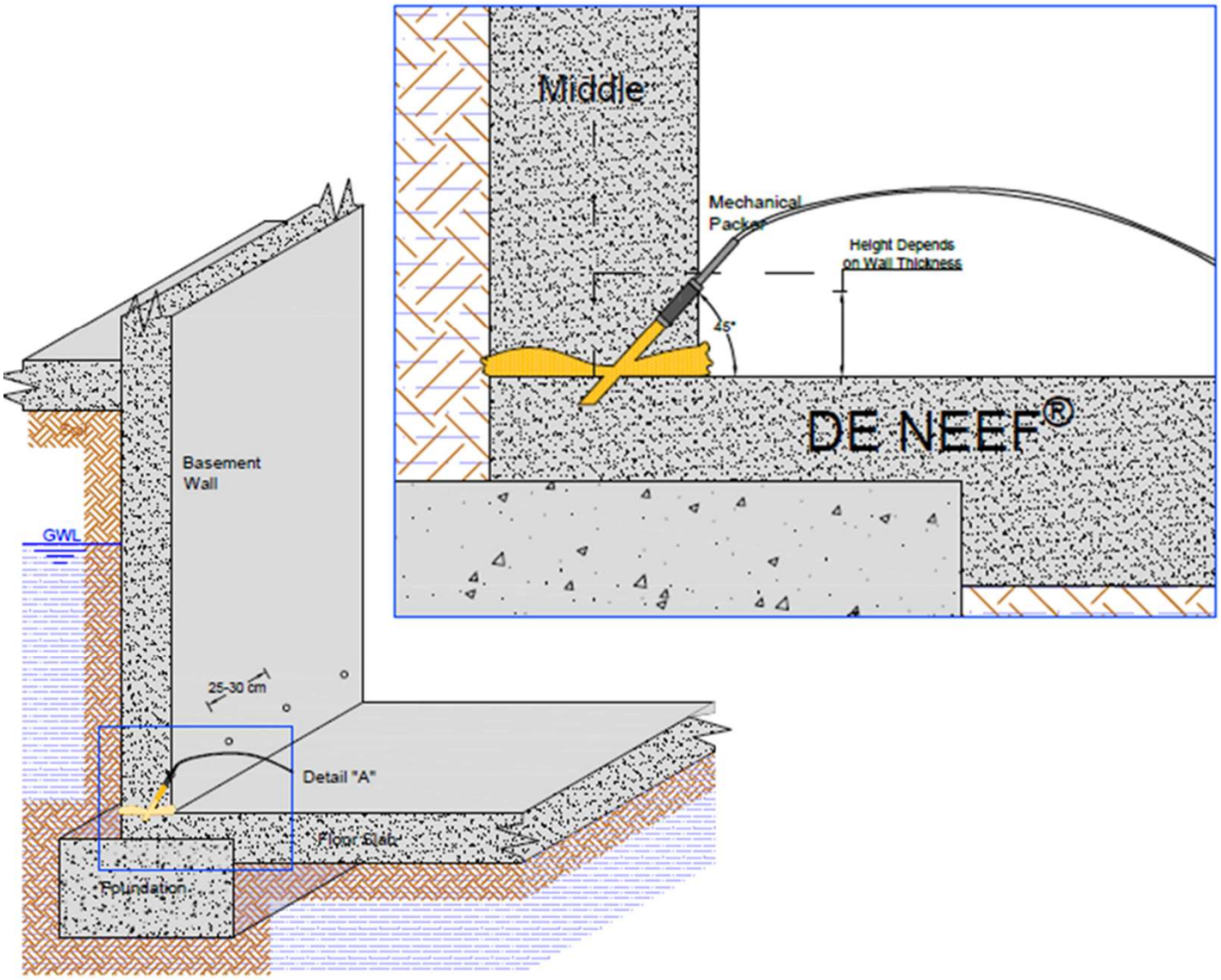

- Continue to inject all packers until to water is stopped completely.
- Disconnect the injection hose and post-inject with water (separate pump) to let the resin react which remains in the drilled hole.
- The packers can be cut or taken out.
- The remaining hole is repaired with a repair mortar.
- Clean the pump with a solvent “Washing agent ECO”

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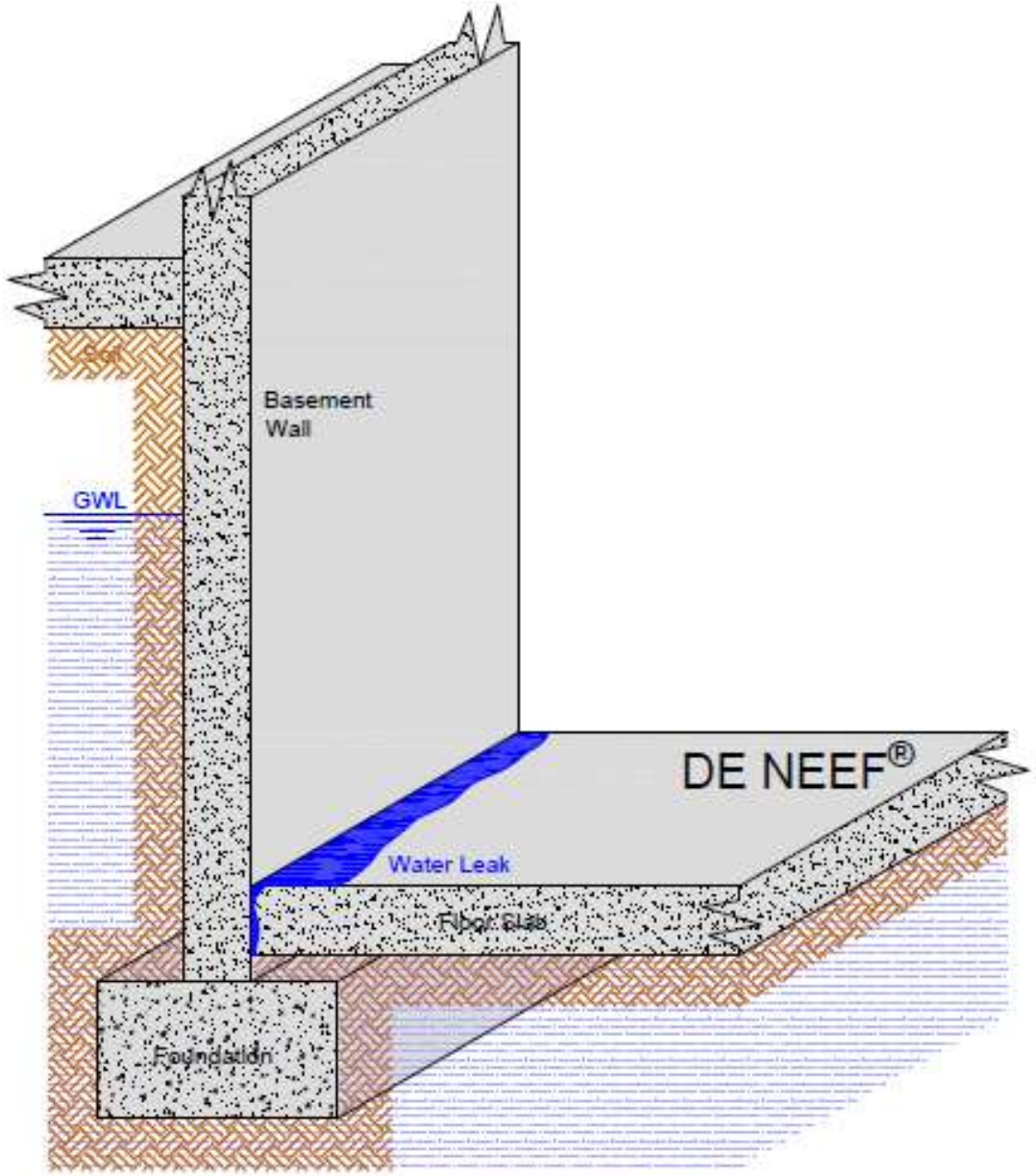

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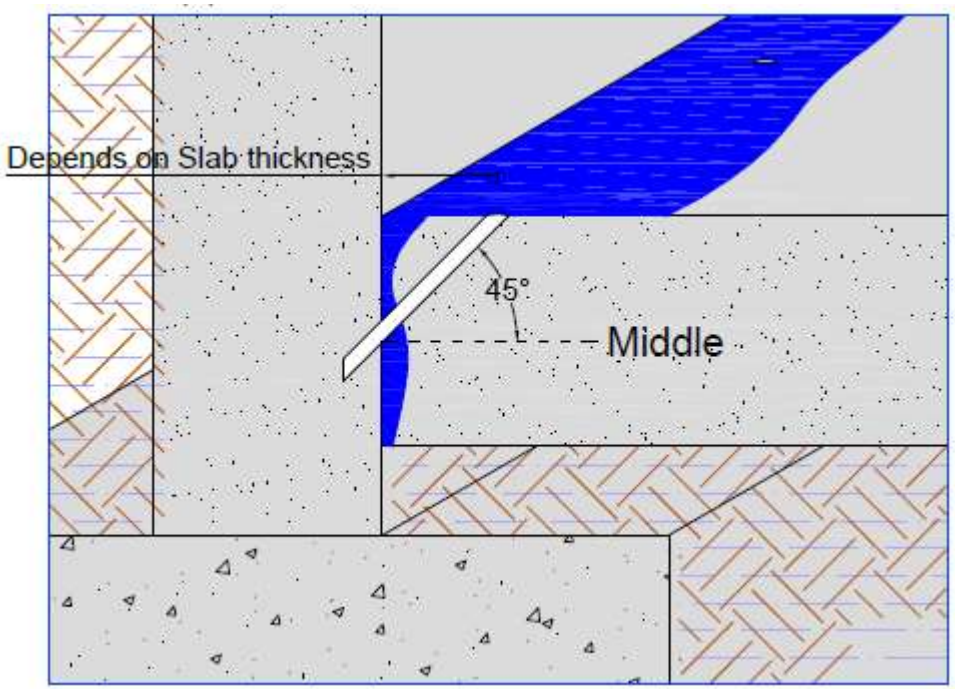

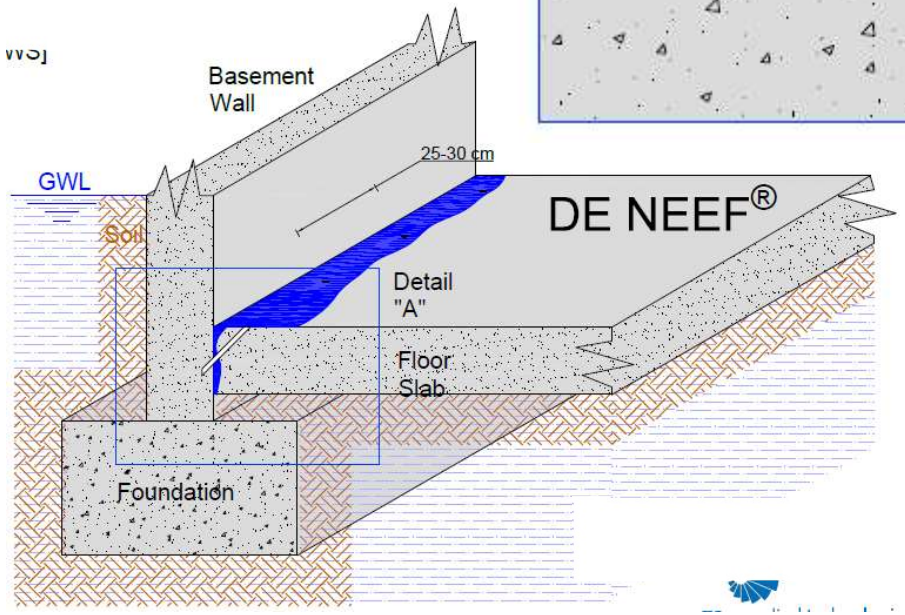

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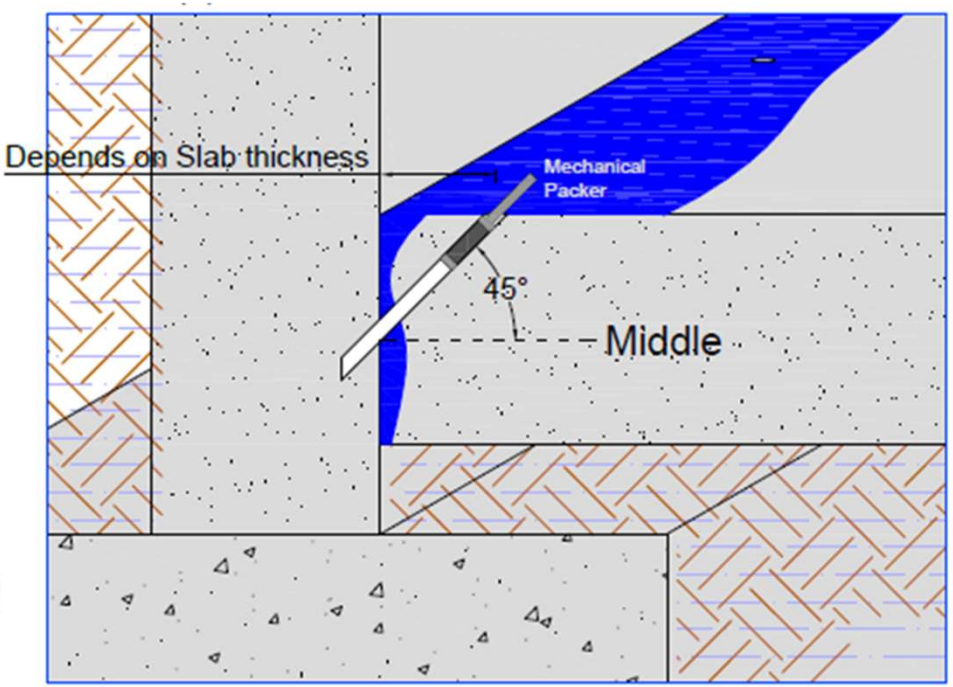

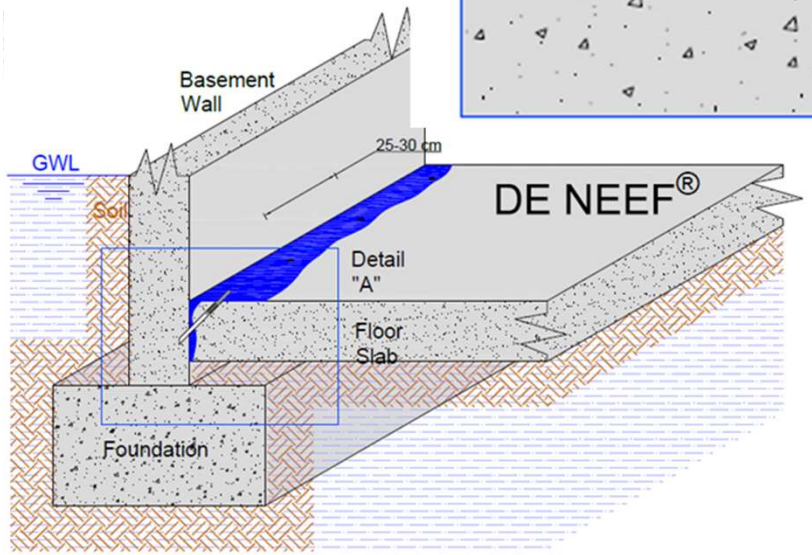

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At 35°C	1%	Approx. 55"	Approx. 6'45"	Approx. 15V
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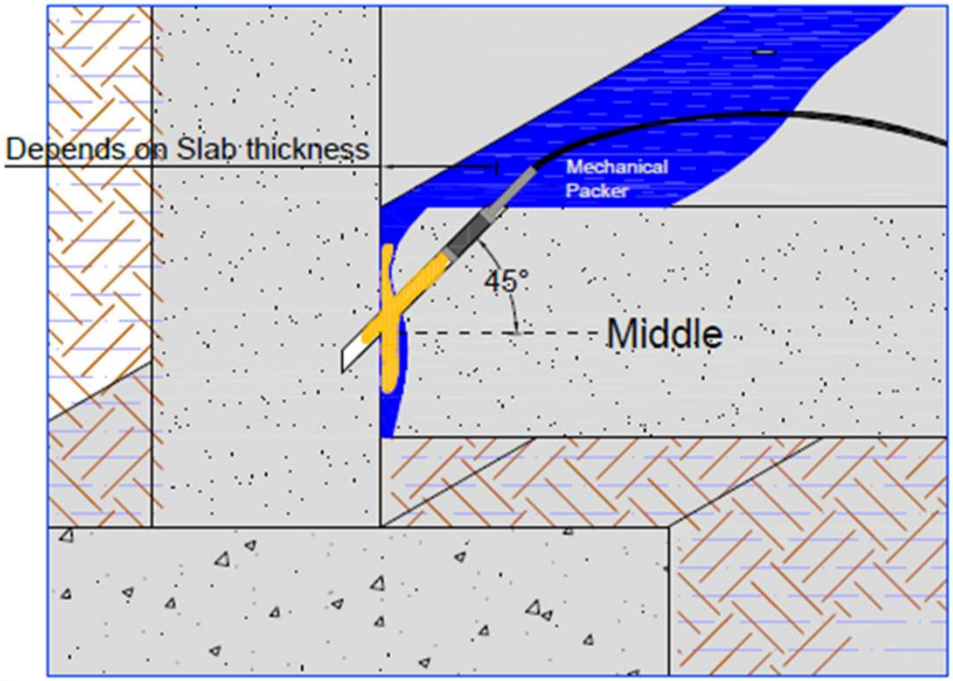

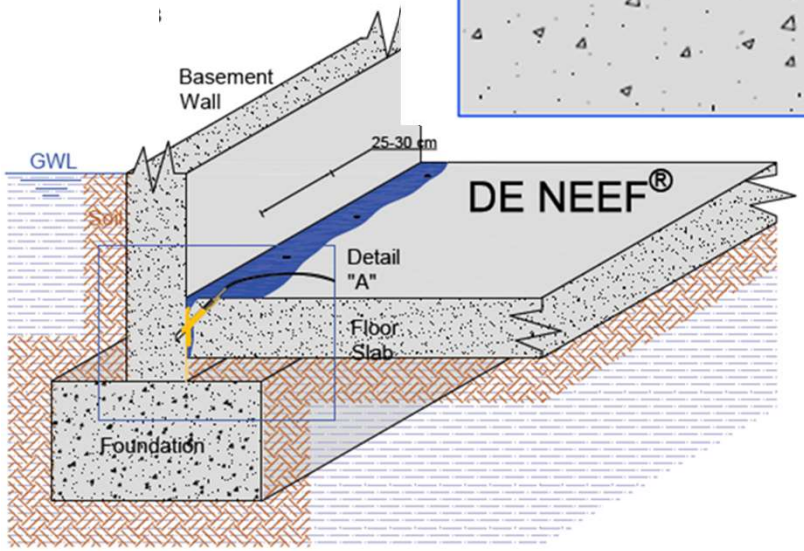

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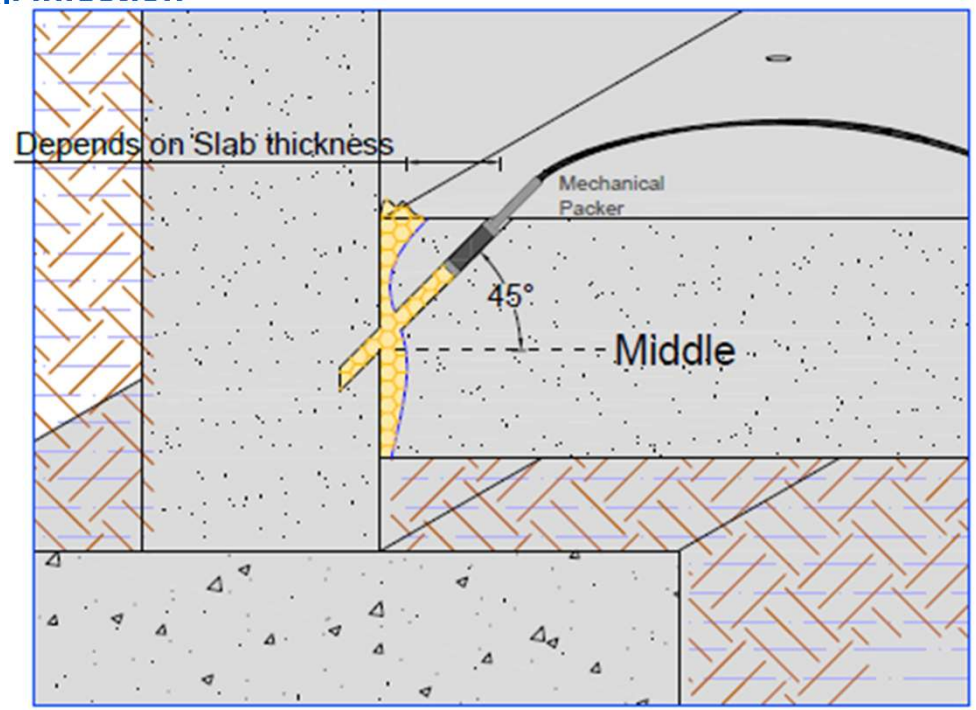

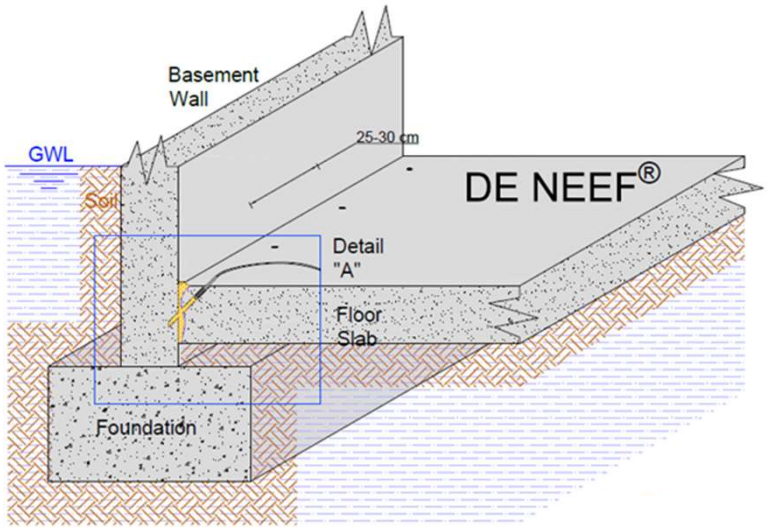

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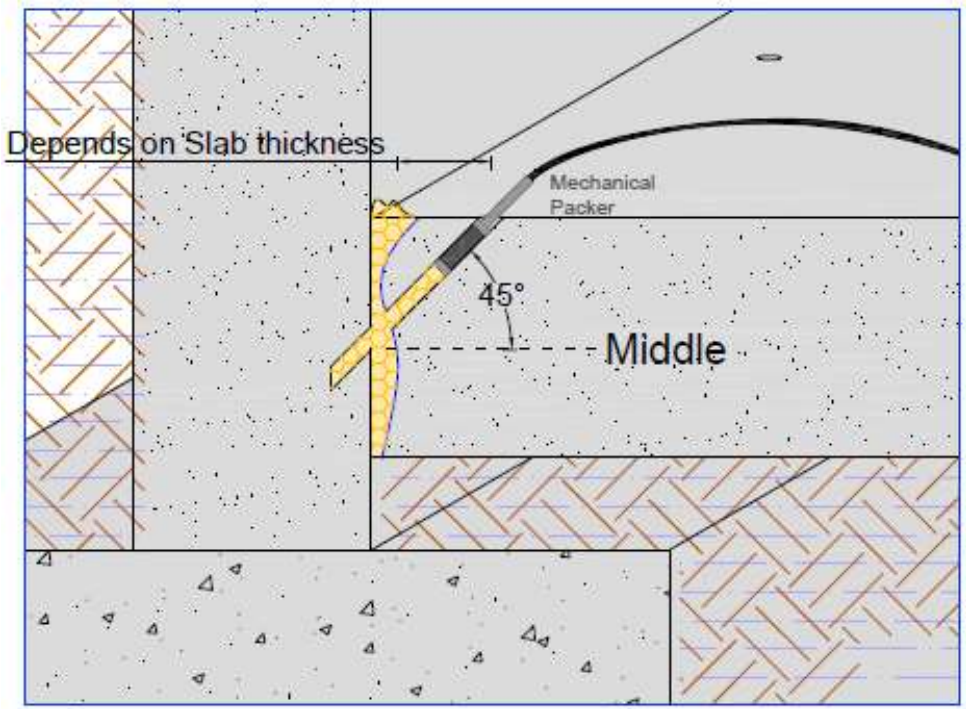

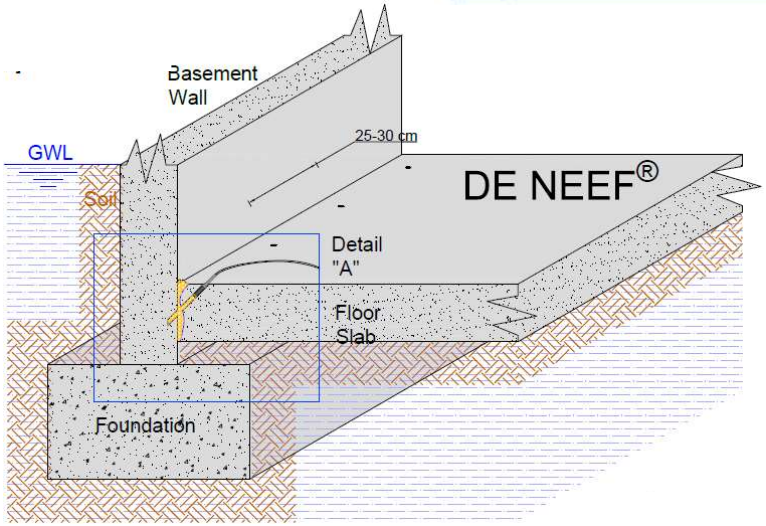

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