



Extending Self Leveling Underlayments with Pea Gravel

TDS 232

LATICRETE® self-leveling underlayment pour depths can be extended with clean pea gravel up to twice the maximum standard pour depth in a single pour. Extending self-leveling underlayments is challenging as it can be difficult to maintain a wet edge with deeper pours. A crew of workers will need the ability to mix, pour, and work a much larger amount of materials in roughly the same amount of time as a typical thinner pour depth in order to maintain a wet edge. For these reasons it is highly recommended that this type of work be conducted by a skilled, qualified, and experienced contractor and crew.

LATICRETE® Product	Max. Standard Pour Depth	Max. Pour Depth When Extended with Pea Gravel
NXT LEVEL FLOW	2" (50mm)	4" (101mm)
NXT LEVEL	3" (76mm)	6" (152mm)
NXT LEVEL PLUS	1 ¼" (32mm)	2 ½" (64mm)
NXT LEVEL DL	1 ¼" (32mm)	2 ½" (64mm)
NXT LEVEL SP	2" (50mm)	4" (101.6mm)
SUPERCAP SC500 & SC500 Plus	3" (76mm)	6" (152mm)

Note: For estimate of approximate material usage, the following may be helpful.

- Calculate the weight of self-leveling underlayment required for full pour depth as total lbs.
- Multiply self-leveling underlayment total lbs. x 0.60. This will give approximate lbs. of self-leveling underlayment required.
- Multiply self-leveling underlayment total lbs. x 0.40. This will give approximate lbs. of pea gravel required.

Example: 1,000 ft² (92.9 m²) project using **NXT Level** extended with pea gravel to 6" (152mm).

- 50,000 lbs. (22,727 kg) of **NXT Level** needed for theoretical 1,000 ft² (92.9 m²) to a full 6" (152mm) depth pour.
- 50,000 lbs. x 0.60 = 30,000 lbs. or 600 50 lbs. bags of **NXT Level**
- 50,000 lbs. x 0.40 = 20,000 lbs. of pea gravel
- Approximately 600 50 lbs. bags **NXT Level** and 20,000 lbs. (9,091 kg) of pea gravel needed for 1,000 ft² 6" deep pour.

Caution: Use only clean, washed, saturated-surface-dry (SSD) 1/4" to 3/8" (6 - 10 mm) pea gravel as any dust or dirt brought into the mix may lead to a weak, non-bonded underlayment. Do not use limestone or other potentially reactive aggregates.

Method 1: Prepare the substrate in accordance with [TDS230 - Substrate Preparation and Primer Guide](#). Once the floor is properly prepared and primed place an even layer of clean 1/4" to 3/8" (6 to 10 mm) pea gravel over the primed surface at no more than half of the maximum extended pour depth of the self-leveling underlayment being used (i.e., if the desire is to attain a 4" [100mm] pour depth then the pea gravel should be placed to 2" [50mm] deep). Mix self-leveling underlayment according to the mixing instructions on the product data sheet. Pour the mixed self-leveling underlayment over the pea gravel and rake aggressively to ensure full wetting of the pea gravel with the self-leveling underlayment and to ensure full contact and bond with the primed substrate. While the self-leveling underlayment/pea gravel mix is still wet and workable, immediately pour additional self-leveling underlayment over the raked and fully coated pea gravel up to the desired elevation without exceeding the maximum standard pour depth of the self-leveling underlayment. Immediately following placement, while the self-leveling underlayment is still wet and workable lightly smooth the surface and pour lines by passing a smoother tool over the surface to provide an even, smooth finish. Repeat this process, maintaining a wet edge until entire area has been completed.

Method 2: Prepare the substrate in accordance with [TDS230 - Substrate Preparation and Primer Guide](#). Once the floor is properly prepared and primed clean 1/4" to 3/8" (6 -10 mm) pea gravel can be added directly to the self-leveling underlayment during mixing. Mix powder and water according to the product data sheet (2-3 minutes) then, working quickly add pea gravel (40% by weight pea gravel

per bag of self-leveling underlayment) and mix until uniform and lump free (1-2 minutes). Pour self-leveling underlayment/pea gravel mix over primed surface then rake aggressively until spread evenly up to half of the total pour depth. While the self-leveling underlayment/pea gravel mix is still wet and workable immediately pour additional self-leveling underlayment mixed with only water over the raked and fully coated self-leveling underlayment/pea gravel mix up to the desired elevation. Do not exceed the maximum standard pour depth on top of the pea gravel mixture. Immediately following placement, while the self-leveling underlayment is still wet and workable lightly smooth the surface and pour lines by passing a smoother tool over the surface to provide an even, smooth finish. Repeat this process, maintaining a wet edge until entire area has been completed.

Method 3: Prepare the substrate in accordance with [TDS230 - Substrate Preparation and Primer Guide](#), then use a two pour or “pre-fill and cap” application choosing either method 1 or 2 as described above to “pre-fill”, but only pour approximately 1/4” of additional self-leveling underlayment over the wet/still workable self-leveling underlayment/pea gravel mix. Continue with the pre-fill until the entire area is installed. Allow the pre-fill to dry until walkable then double prime the surface with Primer Plus mixed with water at a dilution ratio of 1:5 (1 part primer to 5 parts water) for the first treatment. Allow the first Primer coat to fully dry before applying a second coat of Primer Plus at a dilution ratio of 1:3 (1 part primer to 3 parts water). Allow the second coat of Primer Plus to fully dry. Then “cap” the pre-fill by installing self-leveling underlayment according to the normal mixing and installation instructions to the desired elevation without exceeding the maximum standard pour depth. Immediately following placement, while the self-leveling underlayment is still wet and workable lightly smooth the surface and pour lines by passing a smoother tool over the surface to provide an even, smooth finish. Repeat this process, maintaining a wet edge until entire area has been completed.

Extended self-leveling underlayment applications will require longer drying times. Always refer to finish floor manufactures written instructions and recommendations for suitable substrates, moisture conditions and other considerations.

It is important to note that successfully extending the pour depth of self-leveling underlayments depends greatly on the contractor’s experience, application method and the job site conditions. It is highly recommended that a mock-up is installed on site to verify suitability and to ensure that the required performance and desired outcome is achieved.

Please note that stated LATICRETE self-leveling underlayment compressive strengths may vary when extending with pea gravel.

Technical Data Sheets are subject to change without notice.
TDS 232N.doc

For latest revision, check our website at <https://laticrete.com>

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