



Non shrink cementitious grout with high strength for anchoring and precision grouting.



Product description

webertec NSG 2 is a specially developed, triple consistency shrinkage-compensated grout, for anchoring / precision grouting, as well as for non-structural concrete repairs.

Webertec NSG 2 can be used in fluid, pourable and trowellable consistency for gap thickness upto 100 mm, complying to ASTM C 1107.

Webertec NSG 2 can be used in trowellable as well as pourable consistency as a repair mortar, complying to R2 standards of EN 1504 – 3.

Features and benefits

- Chloride free – Develops high initial strength without use of chlorides.
- Shrinkage compensation in the plastic state, through gaseous expansion.
- High early strength and high ultimate strength ensures long life of grout and repaired substrate.
- No bleeding or segregation.
- Prepacked with graded aggregates, to eliminate jobsite variations.
- Iron free – does not cause staining.
- High bond strength with the existing concrete.

Typical uses

- Base plate grouting.
- Anchor grouting.
- Pile capping.
- Tie rod grouting.
- Coving joints, before waterproofing.

Conformation to standards

As Anchoring and precision grouting : *ASTM C 1107*

As repair mortar : *EN 1504-3 : R2 type ; Class III*

Limitations & precautions

- Never exceed maximum water ratio, as prescribed.

- For filling gaps more than 100 mm thick, additional aggregates would need to be added.
- Make sure the surfaces are clean, to prevent debonding.
- Ensure adequate curing is done.
- Ensure continuous pouring to prevent formation of cold joints.
- Ensure the grout is uniformly compacted.
- Levelling shims should have rounded edges, to prevent stress accumulation.
- Mix enough quantity of grout, so that there is no shortage in between placing the grout.
- Meant for non-structural repair only. Not to be used for structural repairs.

Yield

- Trowellable consistency: Add 3.25 - 3.5 litres of water in 25 Kg bag to get 12.8 - 13.2 litres of trowellable grout or repair mortar.
- Pourable consistency: Add 3.75 - 4.25 litres of water in 25 Kg bag to get 12.8 - 13.2 litres of pourable grout or repair mortar.
- Fluid consistency: Add 4.5 - 5 litres of water in 25 Kg bag to get 12.8 - 13.2 litres of fluid grout.

Maintenance

As non-shrink grout

1. Preparation

1.1 Concrete

- Make sure the base concrete has attained its design strength before grouting.
- Clean the concrete substrate of oil stains and bond inhibiting compounds, dirt, dust, laitance etc.
- Prepare the surfaces by chipping, sandblasting or other mechanical means to ensure a roughened profile. Particular care should be given to the quality of the concrete foundation.
- Make sure the concrete substrate is not prone to efflorescence.

1.2 Baseplates

- All metal surfaces of equipment bases which are to be in direct contact with the grout should be thoroughly cleaned to bare metal immediately before grouting.
- Level and align baseplates as per requirement. Provide approximately two inches of clearance under leveled baseplates for grouting. For large volume placements with clearances greater than three inches, grout should be extended with clean, washed coarse aggregate. For long and large volume pours, expansion joints must be considered.
- Shims, wedges, blocks, and leveling nuts are used to support the equipment during alignment and grouting. They can be removed after grouting or can be left in place. If they are required to be removed, apply two generous coats of paste wax to them, wrap them with polyethylene film, or use some other bond breaker.
- Before grouting, tighten anchor bolt nuts as per manufacturer's instructions.

1.3 Anchor bolts

- Anchor bolt holes can be procured when the foundation is poured, or carefully and accurately located and core drilled before the equipment is installed. Roughen the sides of anchor bolt holes and thoroughly clean all hole and bolt surfaces of oil, greases, loose cement, dust, and other bond-inhibiting substances. Soak the hole to saturation (8 to 24 hours) with clean water, and remove all free surface water from the holes.
- Mix and pour grout into the hole. Rod the grout well to release any trapped air. When the grout has set, finish the grout surface, and adequately cure the exposed surface.
- After curing, tighten the bolt using a torque wrench and only upto the prescribed torque.

1.4 Forming

- Build all forms of sufficiently strong materials, securely anchored and shored to withstand the considerable pressure forces developed in placing grout.
- Coat forms with two generous coats of paste wax, form oil, or other approved release agents for easy form removal. Seal forms tightly against existing concrete and vertical wood surfaces.
- Air vent holes are mandatory for some baseplate designs. Follow base plate manufacturer's instructions.

2. Mixing

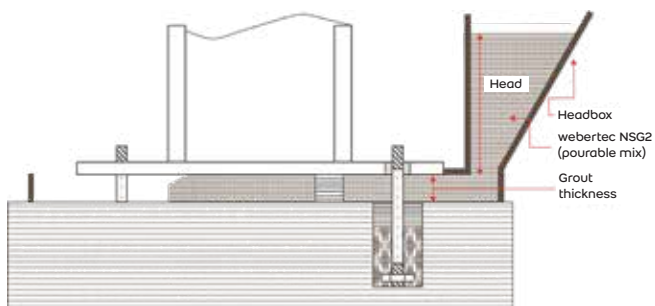
- Have sufficient equipment to support continuous grouting operations, and locate tools and equipment as close to the grouting location as possible
- Can be mixed using a mortar mixer, with moving blades, or in a bucket by using a medium speed (400-600 rpm) heavy duty mixer with helical paddle.
- For mixing take 16% water in a bucket, gradually add the grout mix, while continuously mixing, to get a trowelleble consistency, ensuring no lumps are present.
- Continue mixing and add the remaining water as per the mix ratio, to get the final consistency of the grout.
- Webertec NSG2 can be used for grouting, upto a height of 100 mm, without addition of any aggregates. For higher thickness grouting, appropriate large aggregates should be added.
- DO NOT mix the grout for more than 5 mins.
- NEVER exceed the maximum amount of water as specified in datasheet.

3. Placing

- Make sure the temperature of the ambient air, the grout, water for mixing, the baseplate and

the concrete foundation are within the operable range.

- At temperature ranging 27 - 32°C, make sure that the mixed grout is placed within 20 minutes of mixing.
- Place grout in a way that assures that all spaces are completely filled and that the grout is in intimate contact with boundary surfaces. Be sure to check whether air vent holes are needed.
- To avoid cold joints under the baseplate, grout placement should be rapid and continuous.
- All grouting should take place from one side to the other to avoid trapping air.
- Grout can either be pumped or poured into place, depending upon the volume of grouting to be done. For large volumes, pumping is the recommended method.
- Use a positive displacement pump for pumping grout.
- If a head box is used, for placing grout under hydraulic head pressure, make sure the head is at least ½ of the maximum distance the grout has to flow. Make sure the head box is always full, and the level never reaches below the top of the baseplate.
- A plunger may be used to push the grout, in the head box.



1. Typical Headbox arrangement

4. Finishing Shoulders

- When the grout has stiffened to the point that it will hold its shape when scored with the point of a trowel, remove the forms and cut

the shoulders back at a 45° angle from the bottom edge of the baseplate to the foundation. Finish the grout shoulder with a trowel, float, or brush finish, as desired.

- For a cosmetic repair, coat the crack with a paste made from the grout and a little water.
- Unacceptable shoulder profiles as shown can cause cracks to appear and reduce the load carrying capacity of the grout.



5. Curing

- After careful placement of the grout and initial hardening, any exposed area should be adequately cured. Grout should always be protected from extreme drying conditions.
- All exposed surfaces to be continuously covered in wetted burlap/hessian, and saturated with water very generously.
- Maintain normal temperature of the base plate, concrete and grout, since all have different coefficient of thermal expansion.
- After curing, tighten the bolt using a torque wrench and only upto the prescribed torque, to prevent any damage to the bolt or to the grout

As repair mortar

Surface preparation

- Outline the area to be repaired using a marker or chalk, and cut atleast 15 mm deep, along the mark. Ensure vertical cuts.
- If rebar is exposed, chip atleast 20 mm below

the rebar, and make sure the rebar is cleaned of any rust, and then appropriately coated with Weberprim Epox 501.

- Clean the concrete substrate of oil stains and bond inhibiting compounds, dirt, dust, laitance etc.
- Prepare the surfaces by chipping, sandblasting or other mechanical means to ensure a roughened profile.
- Saturate the area, with water and bring to SSD conditions.
- Apply Webertec SBR on the area to be repaired.

Mixing

- Mix Webertec NSG 2 with water, as per the prescribed mix ratio, to get an appropriate consistency as per requirement (trowelable or pourable consistency).
- For deep repairs, appropriate aggregates can be added to the mix. This will increase the working time, and also reduce chances of cracking over higher thickness.

Application

Trowelable consistency

- Apply thin layer of repair mortar and push firmly into the substrate, filling all pores and cavities
- Apply the repair mortar in required thickness, ensuring that the mortar does not sag.
- If additional layer is required, roughen the first thick layer, and then start with applying a thin coat, and then the thick coat, as described above.
- Repeat as many times as required, to completely cover the repair area.

Pourable consistency

For vertical surface

- Form work will be required for repairing verti-

cal surface.

- Leave a small hole / opening at the top of the formwork.
- Pour the mix from the opening, completely filling the repair area, behind the formwork.
- Lightly vibrate the formwork to ensure good contact with the substrate.

For horizontal surface

- Pour the repair mortar from one end the repair area, to other end of the repair area.
- Slightly agitate the mix, to ensure good contact with the substrate.
- Screed the excess material, once the mix begins to set, and finish as required.

Packaging

25 Kg bags

Shelf life

6 months from month and year of packaging, in unopened bags, when stored in cool & dry conditions, away from direct sunlight.

Technical parameters

Test	Test method	Time interval	Typical values		
Compressive strength	ASTM C 1109	1 day	> 30 MPa		
		3 days	> 42 MPa		
		7 days	> 53 MPa		
		28 days	> 65 MPa		
Tensile strength	ASTM C 580	7 days	> 8.5 MPa		
		28 days			
Height change (%)	ASTM C 1107		0.002		
Tensile adhesion strength	EN 1542		~1.25 MPa		
Compressive strength (MPa) with 6 mm down aggregates	ASTM C 109		50%	75%	100%
		1 day	42 MPa	35 MPa	34 MPa
		3 days	55 MPa	50 MPa	50 MPa
		7 days	64 MPa	68 MPa	67 MPa
		28 days	80 MPa	78 MPa	78 MPa

Condition of sale

Sold Subject to the company's condition of sale which are available on request.

Precautions for use

There may be irritation caused in eyes and skin in case of contact for a very long time. Please seek medical help if the problem persists for a long time. The product is recommended to be applied with gloves.

Disclaimer

The user should determine the usability of the product for its intended use. Our products are manufactured under the Saint-Gobain quality standards and subjected to strict quality control procedures. Since the company has no control over site conditions and installation procedures, the company will not be responsible under any circumstances for any loss, damage, or liability from incorrect usage.



FDS / SDS / DoP
Product information



<https://goo.gl/d39avs>

Scan QR code to download android app for product information and technical data for our complete product range, directly from your smartphone.



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