

DENKA PRETASCON TYPE-1R

High Performance, Cementitious Non-Shrinking Grout

Description

DENKA PRETASCON TYPE-1R is a pre-mixed, non-shrink dry mortar that has been developed as a grouting materials. The grouting material is prepared by mixing the dry mortar with water. As a grouting material, **DENKA PRETASCON TYPE-1R** has high flowability, and can be injected to fill spaces without void formation. **DENKA PRETASCON TYPE-1R** can be placed in thickness up to 100mm in a single pour application.

Uses

- Machinery foundations
- Bridge bearing plates
- Steel structure foundations
- Underpinning
- Anchor bolt

Advantages

- Dual expansion.
- Keep excellent fluidity and filling performance at even high temperature.
- Excellent for pumping, does not segregate.
- Non-bleeding and non-shrinking.
- Good bonding with structure after placement.
- Development of high compressive strength early on, and maintenance of this with aging.
- Excellent durability.

Packing Size and General Information

Packaging	25 kg / Bag
External appearance	Gray-white
Usage Temperature range	10~35°C

Mix Proportion and Technical Data

Table 1: Mix Design

Quantity mixed	DENKA PRETASCON TYPE 1R	Water
Per bag (13.3L)	25 kg	4.4 kg
Per 1m ³	1875 kg	330 kg

Quantity of water can be adjusted between 4.3 – 4.5kg/bag (322.5 – 337.5kg/m³)

Table 2: Properties of Denka Pretascon Type-1R

Temperature (°C)	Water (kg/bag)	J14 Funnel (sec)	Bleeding (%)	Expansion (%)	Setting time (hr-min)		Compressive Strength (MPa)			
					Initial	Final	1 day	3 day	7 day	28 day
Specification	4.4	6 - 10	0.0 – 0.0	0.0 – 0.8	> 1-00	<10-00	-	>39.2	>44.1	>53.9
30 ± 2	4.4	6.20	0.00	0.63	4 - 00	6 - 00	44.1	56.5	61.8	69.6



Fig.1: Denka Pretascon Type-1R Grout

Application Instruction

1) Surface Preparation

Before applying **Denka Pretascon Type 1R**, make sure the surface was clean from any foreign matter such as concrete fragments, oil, and trash undersides of equipment base plates or in anchor holes. Clean carefully if oil is present.

2) Moistening of foundation concrete surface

Thoroughly sprinkle water at the place to be grouted from the day before grouting so that the surface of the concrete foundation will be moist.

3) Formwork

Forms should be assembled tightly to prevent grout from leaking; and any gaps sealed with stiff mortar or soft tape.

4) Mixing Method (Grout Mortar)

(1) Decision of mixing volume:

Mixing volume should be decided by mixer type. In general, mechanical mixing should be performed

(2) Charge mixing water:

Weigh out the recommended volume of water and charge it to the mixer. The water volume can be adjusted in accordance with the range shown in Table 1.0.

(3) Charge of PRETASCON TYPE-1R:

Charge the recommended volume of **PRETASCON TYPE-1R** to the mixer.

(4) Mixing

Mixing time should be carried out 1~2min from when **PRETASCON TYPE-1R** is fully charged into the mixer.

(5) Finish

5) Grouting

Check the condition of chipping, cleaning and form in advance before grouting work. Grouting method should be decided depending on grouting volume and construction conditions.

6) Finishing

After grouting, perform finishing work of exposed parts to prevent minute cracking (plastic shrinkage) due to initial rapid evaporation of moisture. The timing of finishing work is shown in Table 4.0.

Table 4.0: Tentative timing of finishing work (time from grouting)

Ambient temperature	Time
10~30°C	2~4 hours
>30°C	1~2 hours

7) Curing

After finishing work, maintain the grout surface in moist condition with curing mats, rags, or sprinkle with water. Curing period is as follows.

- 1) Winter : 4~5 days after grouting
- 2) Summer : 3~4 days after grouting

Storage

PRETASCON TYPE-1R should be stored in dry areas, indoors, and out of direct sunlight. **PRETASCON TYPE-1R** in open bags should be used up completely or the bag should be resealed for storage. The shelf life is 8 months from production date. In high humidity locations, the shelf life may be reduced.

Technical Support

Denka offers a technical support package to specifiers, end-user and contractors, as well as on-site technical assistance.

Handling Precautions

- Refer to the Safety Data Sheet (SDS) before use.
- Use a stainless steel or iron agitating blade. Do not use an aluminum blade because hydrogen gas evolution can occur while mixing the mortar; resulting in explosions.
- Mix grout with the specified quantity of water. Using quantities outside the specified range may affect the performance of the non-shrink mortar.
- Use clean water free from oils, salts, or organic compounds.
- Before beginning injection work, optimize water quantity in mixing trials and remove oily residues, laitance, and mud from the surface of structures.
- Wear protective gear (goggles, mask, gloves, and rubber boots) while handling the product.
- Do not dispose of the product in drains.
- Once opened, the product should be used up completely. Otherwise, reseal for storage.
- The product should be stored in a dry area, indoors, and out of direct sunlight
- For further information, please contact DENKA CONSTRUCTION SOLUTIONS MALAYSIA SDN BHD.

Additional Information

Denka Construction Solutions Malaysia Sdn Bhd offers a wide range of complementary products, which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.

Denka Construction Solutions Malaysia Sdn Bhd
(Formerly known as Estop Sdn Bhd)

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