

DENKA PRETASCON TYPE-M

Non-shrink Mortar for Grout (for Use in Massive Mortar)

Description

DENKA PRETASCON TYPE-M is a premixed, non-shrink dry mortar developed for grouting needs. It is prepared by simply mixing with water. As a grouting material, **DENKA PRETASCON TYPE-M** boasts high fluidity and can be injected to fill spaces while reducing void formation.

Uses

- Grouting under heavy machinery
- Steel structure foundations
- Building reinforcement

Advantages

- Subsidence and shrinkage are prevented by its moderate expansion, enabling high integration with base concrete that which leads to higher performance and long-term durability
- Heat-resistant, mitigating cracks caused from heat of hydration
- Excellent fluidity at high temperatures (35°C)

Packing Size and General Information

Packaging	25 kg / Bag
Binder to sand ratio	1:2
External appearance	Gray-white
Usage Temperature range	10~35°C
Water mix ratio	3.5 ~ 4.1 kg/bag

Mix Proportion and Technical Data

Table 1: Mix Design

Unit	Target J ₁₄ flow value (seconds)	W/T-M (%)	kg/m ³		Mortar volume (L)
			PRETASCON TYPE-M	Water	
Per m ³	8±2	15.6	1,900	296	1,000
Per bag	8±2	15.6	25	3.9	13.0

Mix Proportion and Technical Data

Table 2: Properties of Denka Pretascon Type-M (30°C)

Water (kg/bag)	Bleeding (%)	Expansion ¹ (%)	Setting time (hr-min)		Compressive Strength (MPa)		
			Initial	Final	Day 3	Day 7	Day 28
3.9	0.00	0.0-0.8	≥1.00	≤10.00	≥20	≥35	≥45

¹Measured at 28 days



Fig.1: Denka Pretascon Type-M Grout

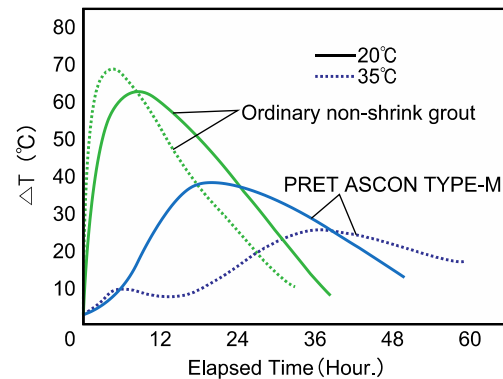


Fig.2: Adiabatic Temperature Distribution

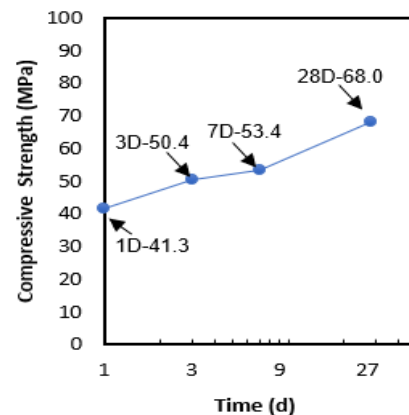


Fig.3: Example of Compressive strength

Application Instruction

1) Selection of Grouting Material

Table 3.0: Grouting Selection

PRETASCON		PRETASCON TYPE-M with Coarse Aggregate	
TYPE-1R	TYPE-M	Recommended Coarse Aggregate size (mm)	10mm
A	B	C	

*Coarse Aggregates: Pea gravel (size: 10mm) preferable for TYPE-M (10kg per bag)

*Before using PRETASCON T-M with coarse aggregate, it is recommended to have a mock-up test in order to check the influence on mixing method, flowability, workability, strength and more.

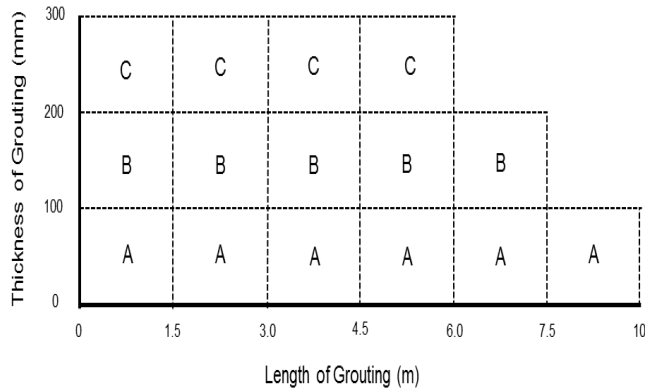


Fig.4: Co-relation of grout length with grout thickness

*In the case that the thickness is more than 200mm, it is recommended to use the concrete.

*As necessary, it is recommended to have a mock-up test.

2) Chipping and cleaning of foundation concrete surface

Perform chipping of foundation concrete surface at the place to be grouted. Also, check to see that foreign matter such as concrete fragments, oil, and trash are not present at the undersides of equipment base plates or in anchor holes. Clean carefully if oil is present.

3) 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.

4) Formwork

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

5) 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-M:

Charge the recommended volume of PRETASCON TYPE-M to the mixer.

(4) Mixing

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

(5) Finish

6) 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.

7) 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°C	3~5 hours
10~30°C	2~4 hours
>30°C	1~2 hours

8) 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

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Storage

PRETASCON TYPE-M should be stored in dry areas, indoors, and out of direct sunlight. PRETASCON TYPE-M 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.



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