# DENKA PRETASCON T-AP (Aqua-proof)

Anti-washout, non-shrinkage grout

## Introduction

As a pioneer of non-shrink grout materials, Denka continues to research and develop new materials for grouting works. PRETASCON T-AP is a grout designed with anti-washout capabilities in water. This grout material can be used in bridge supports, piers, harbors; anywhere underwater grouting is required.

## **Features**

- Excellent non-separation properties in water, reducing environmental impact in the work zone.
- · Non-shrink grout with excellent fluidity obtainable by simply adding and mixing a specified amount of water
- Stable strength gain even underwater
- Minimal precipitation / shrinkage; comparable to that of standard non-shrinkage mortar

## **Packaging / Standard Properties**

- 25kg paper bags
- · Appearance: Cement gray-white color

# Standard Mix Proportions

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Mix	Pretascon Type-AP	Water	Mix volume	
Per bag	25 kg	5.8 kg	~14.7 {	
Per m <sup>3</sup>	1700 kg	394 kg	1000 ℓ (68 bags)	

# **Anti-washout properties**



PRETASCON TYPE-AP anti-washout property in water



# **Physical Properties**

#### Standard Properties

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	Ambient	Water	Flow <sup>1</sup>	Bleeding	Expansion	Setting time (mins)		
	Temperature	(kg/bag)	(mm)	(%)	(%)	Initial	Final	
	5°C	6.2	280	0.00	0.38	14:00	25:30	
	20°C	5.8	320	0.00	0.43	6:00	8:30	
	30°C	5.8	310	0.00	0.45	3:45	5:00	

### Compressive Strength

Ambient	Air measurements (N/mm²)			Water measurements (N/mm²)²			
Temperature	3d	7d	28d	3d	7d	28d	
5°C	11.3	32.0	50.0	10.5 (93%)	30.4 (95%)	47.9 (96%)	
20°C	38.8	52.0	65.1	34.6 (89%)	44.2 (85%)	58.4 (90%)	
30°C	46.6	56.0	72.9	40.2 (86%)	49.3 (88%)	66.3 (91%)	

<sup>&</sup>lt;sup>1</sup>Static flow value taken using JISR5201 cone; 30°C water used for mixing at 5°C ambient conditions.

# **Handling Precautions**

#### 1) Mixing

- Use clean mixing water free from oils, salts, alkalis, or organic compounds.
- The amount of mixing water required will vary depending on the material temperature, ambient temperature, mixer-type, overall mixing volume etc. Perform pre-trials to confirm the required volume of water beforehand.
- Carry out mixing with a specialized high speed mortar mixer or a hand mixer at above 900 rpm for about 1 ~ 2 minutes.
  Use a stainless steel or iro blade. Do not use an aluminum blade because aluminium can react with the mortar during mixing; causing unintended expansions.

#### 2) Injection/Filling

• Fill the grout from one end either by the self-pressure or pump method; filling continuously until the mortar starts flowing out from the outflow end. Take caution to prevent air entrainment or void formation.

#### 3) Curing

- Once grout is completely applied, keep it away from direct sunlight or wind and ensure that the grout is constantly moist during curing by using a curing mat etc.
- · Refer to the Safety Data Sheet (SDS) before use.
- 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.



<sup>&</sup>lt;sup>2</sup>A mould was placed underwater, and mortar was filled into the mould using a funnel 10cm away from the mould surface. Figures within the brackets represent water measurements as a percentage of air measurements.

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