

# Crocodile GP Grout

## General Purpose Non-Shrink Hydraulic Grout



### General Purpose Hydraulic Grout

Crocodile GP Grout is a ready mixed cementitious non-shrink grout which provides high-strength, good flowability and no bleeding. Suitable for concrete structure works such as reinforcement, anchoring, bedding of machine platform, etc.

### Product Benefits

- Fill-up and eliminate concrete void.
- Typical applications include support structural elemental.
- Machine installation

### Product Features

- High compressive strength >750 ksc (at 28 days)
- No shrinkage and no bleeding
- Good flowability to fill narrow or intricate voids.
- Fill-up gap range: 20 mm. to 70 mm.

### Application

- Machine platform
- Repairing and reinforcing concrete structure
- Anchoring

**Standard:** TIS 2701-2559 ASTM C232, ASTM C827, ASTM C191, ASTM C109, ASTM D7234

**Color:** Grey



## **Application Instruction**

### **Surface Preparation:**

The substrate must be in good condition. Any incomplete concrete, dirt, form-oil, curing compound must be removed. All damage rebars must be treated and reinforced before placing (under control by professional engineer).

### **Pre-Wetting:**

It requires at least 1-3 hours of soaking or flooding for concrete substrate. In the condition of application with high density concrete, it may require longer damp time. All free water should be carefully released with instruction. The surface must be damp but dry (Saturated Surface-Dry, SSD Condition).

### **Formwork:**

All formworks should be planned and constructed to achieve the completed void fill-up. Be sure that there is enough area for continue placing and be aware of air release gap. Apply a suitable form-oil and seal all form-joints to protect the leaking.

### **Product Mixing**

#### **Pure Mortars:**

The product should be mixed in a suitable mixer. Use a slow speed 400 - 500 rpm hand drill and paddle. In case of large work area use a high shear vane mixer. Drum mixers can't provide a sufficient result.

For reach the product capabilities, use clean water to mix with cement as recommended ratio in product technical datasheet. Continue mixing the product until it becomes homogenously, mix at least 3 minutes with consistency of mixer speed.

#### **Micro-concrete:**

In case the thickness requirement is over 70 mm, it's able to add maximum 5 kg. aggregate size 3/8 Inch (9 mm.) per 20 kg/bag of Crocodile GP Grout. Be sure that the aggregate must be immersed but not wet (Refer to SSD Standard for aggregate preparation.) Leave the mixed product for 2 minutes before placing.

#### **Mixing Ratio:**

Crocodile GP Grout 20 kg/bag per clean water

- Plastic : Water 13% or 2.6 liters
- Flowable : Water 14% or 2.8 liters

Micro-concrete mixing: Adding 25% (5 kg) of aggregate size 3/8" for micro-concrete when the depth of placement is over 70 mm.

#### **Placing**

For gaining the maximum benefits of non-shrink grout, the temperature during the placing process must concerned as an important factor to the product properties development during its setting period. At 25°C the mixed product must be placed within 20 minutes for fully expansion process. Planning of mixed product amount for continue placing until fill-up all the gap or void.

Placing the mixed product on outside of the void to eliminate air or remain pre-wet water becoming trapped under the baseplate.

In case of under plate grouting, if there are any bolt-pockets must be grouted in prior state then continue grouting between the substrate and the base plate. It is recommended to set the position of head placing across the shorts distance of flowing direction.



### Curing

The curing process is very important for preventing cracking and development of the product to reach its compressive strength and others property. To complete the product setting process, the exposed areas should be toughly cured. This is able to be done by plastic sheet the continuous application of water and/or cover with wat hessian cloth. Continue the curing process until release the form. It is recommended to use Crocodile Admix Cure applied on all grouting surfaces for complete product curing time.

### Cleaning

Clean all tools with water right after use.

### Estimated Coverage:

Crocodile GP Grout 1,820 kg. (91 bags)/ m<sup>3</sup> (Status: Flowable)

### Technical Data

Density	1.6 – 1.7 kg/L
Bleeding: ASTM C232	0%

Status	Plastic	Flowable
Water : Cement Ratio	13%	14%
Change in Height at Early Age: ASTM C827	0.51%	1.67%
Setting Time: ASTM C191		
Initial	2 hr 33 min	3 hr 25 min
Final	3 hr 5 min	4 hr 10 min
Compressive Strength: ASTM C109		
12 hrs	>210 ksc	-
1 day	>500 ksc	>310 ksc
3 days	>580 ksc	>350 ksc
7 days	>700 ksc	>440 ksc
28 days	>750 ksc	>600 ksc
Pull-off Adhesive Strength: ASTM D7234		
7 days	1.300 N/mm <sup>2</sup>	1.604 N/mm <sup>2</sup>
28 days	2.288 N/mm <sup>2</sup>	1.810 N/mm <sup>2</sup>

\* The above result is an average value from laboratory testing control of ambient temperature, mix-ratio, mixing time and others condition which affect the product properties.

\* Under laboratory condition at 21 °C - 25 °C



### **Recommendation**

- Wet curing Immediately after completion of work. Allow curing 3-7 days.
- Do not add more water. Excess water will affect the mechanical properties such as the decreasing of compressive strength and flexural strength. But the shrinkage will increase.
- Ensure the substrate must be strong, firm and has been prepared in accordance with ICRI Guide 310.2R.

### **Caution**

- Recommend using rubber gloves, dust masks, eye glass and personal safety equipment.
- In case of contact with eyes, rinse immediately with clean water for several times and seek medical advice.
- After contact with skin, wash immediately with clean water and soap.
- Keep away from children.

### **Storage**

- Store in dry and good ventilation, shaded condition. High temperatures and humidity may reduce shelf-life. Place with prevent direct sunlight.
- The product has shelf life for 1 year since manufactured date.

### **Packaging**

Net Weight: 20 kg/bag

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