# **Creative Construction Grout**

High early strength, free flow, non-shrink cementitious grout

#### **DESCRIPTION**

**Creative Construction Grout** is a high performance, cementitious, non-metallic, non-shrink, free flow grout for high early and ultimate strength requirement to facilitate faster loading.

# **STANDARDS**

ASTM C1107 Type C

# **SCOPE OF USE**

Creative Construction Grout can be used for grouting of bridge bearings, machinery base plates, crane rails, stanchion base plates, bolt pockets, etc. Can be used for filling precast joints and tie holes with adjustable consistency. Can be used for reinstating damaged structural elements by placing within the formwork as micro concrete.



# **TYPICAL PROPERTIES AT 25°C**

PROPERTY	TEST METHOD	VALUE	
Component		Single	
Form		Powder	
Colour		Grey	
Fresh wet Density		2.30 kg/ltr +/-0.05	
Consistency	ASTM C1107	Flowable*	
Compressive Strength	ASTM C109	1 day	30 N/mm2
		3 days	45 N/mm2
		7 days	55 N/mm2
		28 days	70 N/mm2
Flexural Strength	BS 6319-3	28 days	9 N/mm2
Expansion (Plastic State)	ASTM C940	Upto 2% positive expansion	
Expansion (Hardened State)	ASTM C1090	0-0.3%	
Bleeding	ASTM C940	Nil	
Setting Time	ASTM C191-01a	Initial:>3Hrs; Final:<6Hrs	

<sup>\*</sup>Flowable Consistency: 125-145% flow as per ASTM C1437

#### SURFACE PREPARATION

Surfaces should be clean, sound, free from oil, grease, laitance and loose particles. Saturate concrete surface with water at least 3-4 hours prior to pouring the grout. Should be remove water, clean metal surface and free from dust, oil and grease. Seal all gaps of the formwork to avoid grout loss.

# **KEY ADVANTAGES**

- Ready to use, just add required water
- Flowable, self-leveling
- High strength
- · Can fill intricate voids
- Non-Shrink
- Early strength allows early loading
- Good dimensional stability
- No bleeding or segregation
- Chloride free
- Controlled expansion

# **MIXING**

Creative Construction Grout should be mixed using a suitable mechanical mixer. For small quantity, use slow speed drill machine with paddle. Drum mixers may not appropriate. Powder should be added to the pregauged water. A free flowing and self-leveling grout can be obtained at a mix ratio of 25kg powder to 4.0 liter of water. It can also be used as dry pack mortars of various consistency by adjusting the water content of the mix.





#### **APPLICATION**

Place the mixed grout within 15 minutes to gain full advantage of the expansion. Bolt pockets should be grouted first. Stop the grout 5-10 mm below the top surface of the bolt pocket. Grouting of base plate should be carried out continuously. Make sufficient grout ready before starting. Start pouring the mixed grout to the short distance of formwork to protect entrapping of air. It is advisable to use heavy duty diaphragm pump when large volumes are needed. Ensure entrapped air is able to escape through relief holes. Grout flow should be continuous and not to be interrupted. Check grout loss and unsealed joints.

#### **CURING**

To prevent rapid surface drying and crazing, exposed surface of grout should be cured with wet burlap or moist gunny bag or use a suitable curing compound.

#### **PACK SIZE**

25 KG bag

# **YIELD**

 $12.25 \, \text{ltr}/25 \, \text{kg}$  bag with W/P of 0.13

# **GENERAL INFORMATION**

Shelf Life	12 months from date of manufacture when stored under warehouse conditions in original unopened packing. Extreme temperature / humidity may reduce shelf life.	
Cleaning	Clean all equipment and tools with water immediately after use. Hardened material can be removed mechanically.	

#### **ATTENTION**

Use Creative Construction Grout for minimum gap of 10 mm and maximum thickness of 100 mm. For thickness above 100 mm, it can be mixed with hard, clean, surface saturate dry (SSD), graded 5/10 mm aggregates in the ratio of 1: 1 or 1:0.5 by weight depending on required consistency. Exact proportion should be determined by conducting site trials. Ambient temperature will affect setting time and strength gain. Use of chilled water, will ensure better flow and retention properties.

# **LIMITATIONS**

Creative Construction Grout should not be used in the unrestrained areas as it may lead to the cracking of grout. Shoulder space between baseplate and framework should be as minimum as possible. Grout surface on the shoulders should be sprinkled with aggregates or restrained to minimize the cracks.

# **HEALTH AND SAFETY**

PPE's	Gloves, goggles and suitable mask must be worn.	
Precautions	Contact with skin, eyes etc. must be avoided.	
Hazard	It is considered as non-hazardous for transportation.	
Disposal	Do not reuse bags. To be disposed off as per local rules and regulations.	
Additional Information	Refer MSDS. (Available on request)	

# **TECHNICAL SERVICE**

Creative Chemical Company technical services are available on request for onsite support to assist in the correct use of its products.





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