



Quality beyond Innovation

Philippine SkyBird Industrial Corp.

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HYPERFLOW 1001

High Performance Cementitious Non-shrink Grout

DESCRIPTION

HyperFlow 1001 is a ready to use shrinkage compensated, natural aggregate cementitious grout for use in general civil engineering works. **HyperFlow 1001** provides extended working life and high early and ultimate strengths.

STANDARDS

ASTM C1107

USES

- Stanchion base plate and columns
- Prefabricated concrete panels and beams
- Bridge bearing plates
- Anchor bolts and bars
- Underpinning
- Patch repair works

ADVANTAGES

- Very flowable and self-levelling
- Ready to use, just add water
- Can fill complicated voids
- No segregation or bleeding
- Controlled expansion
- Easy to place

SURFACE PREPARATION

Surface should be sound, clean, free from oil, grease, laitance and loose particles. Saturate concrete substrate with water for at least 2-3 hours prior to pouring the grout. Removed all standing water before pouring the grout.

MIXING

HyperFlow 1001 should be mixed using heavy duty slow speed drill machine fitted with a paddle. Powder should be poured to the premeasured water. Mix until uniform consistency is achieved. Cold water will give better flowability of mixed grout.

FORMWORK

Make sure that the formwork is watertight. Sealant can be used to seal gaps between concrete and formwork, alternatively, used a dry pack mixed of



HyperFlow 1001 to fill up the gaps between concrete and formworks. Outlets should be provided for draining of water.

TYPICAL PROPERTIES at 25°C

PROPERTY	TEST METHOD	VALUE		
Component	-	Single		
Form	-	Powder		
Colour	-	Grey		
Mixed density	-	2.20 kg/ltr +/-0.05		
Consistency	ASTM C1107	W/P	0.14	0.16
			Flowable	Fluid
Compressive strength	ASTM C1107	1 Day	35 Mpa	30 Mpa
		3 Days	50 Mpa	45 Mpa
		7 Days	60 Mpa	55Mpa
		28 Days	70 Mpa	65Mpa
Flexural strength	BS6319-3	7 Days	9 Mpa	8 Mpa
		28 Days	11 Mpa	10 Mpa
Expansion (Plastic state)	ASTM C827	Up to 2.0% positive expansion		
Bleeding	ASTM C940	Nil		
Setting time	ASTM C191-01a	4-6hrs		

APPLICATION

For best result **HyperFlow 1001** should be used within 30 minutes of the completion of mixing. The substrate should be properly prepared and should be free from contamination, laitance and loose material. Thoroughly saturate the substrate with water at least 2 - 3 hours prior to pouring the grout. All free

water ponding should be down out of the void just before pouring the grout.

As for all cementitious materials curing is essential to prevent rapid drying out of the grout and shrinkage caused by the water loss. Curing should be affected by accepted methods such as curing compound, polyethylene sheet, wet Hessian or water ponding.

If a shaped shoulder is required it should be formed before the grout has reached its final set. Carefully remove the formwork once the **HyperFlow 1001** is self-supporting and cut the shape of the shoulder with a trowel. Preferably the shoulder should be cut to a 45° angle to minimize stresses.

NOTE

Use **HyperFlow 1001** for minimum gap of 10mm and maximum thickness of 100mm. for thickness above 100mm, **HyperFlow 1001** can be mixed with hard, clean, saturated surface dry (SSD), graded 10mm aggregates in the ratio of 1:0.5 - 1:1 by weight depending on consistency required. After adding the coarse aggregates, minimum thickness of the grout must be double the size of the added aggregates with a maximum thickness of 500mm.

PACK SIZE

25 kg bag

YIELD

13.0 ltr/25 kg bag with W/P of 0.16

CURING

Exposed surface of grout should be cured with wet burlap or moist hessian to prevent rapid drying and crazing.

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.

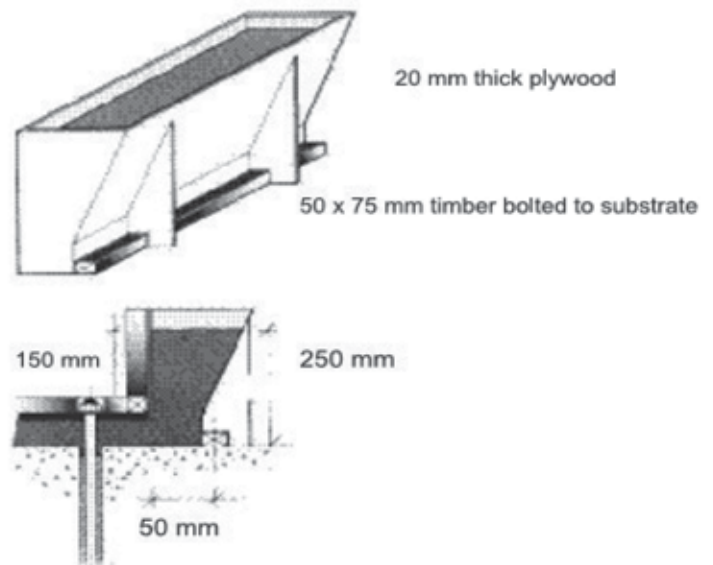
HEALTH and SAFETY

Gloves, goggles & suitable mask must be worn.

TECHNICAL SERVICE

Philippine SkyBird Industrial Corp. Services are available on request for on-site support to assist in the correct use of its products.

Typical hopper set up for grouting



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