

# MEYCO<sup>®</sup> FLOWCABLE (EU)

**Expanding, thixotropizing and plasticising admixture for post tensioned cable duct grouting**

### Description

MEYCO FLOWCABLE (EU) is a chloride free admixture in powder form. It is added at the rate of 6% by weight of cement to produce a flowable, pumpable, non-shrink non-segregating, thixotropic, impermeable grout, providing high strength and high bond to steel. The most important property MEYCO FLOWCABLE (EU) imparts to filling grout is the ability to protect cables against corrosion from aggressive agents and stress

### Uses

- Post tension cable duct grouting
- Grouting of rock anchors

### Advantages

- Lowers w/c to as low as 0.3
- Bleed water reduced to max 0.2%
- Eliminates shrinkage and provides positive expansion on setting
- Makes grout pumpable
- Retains pumpability for at least 1 hour at 30°C
- Prevents separation of water from grout while grouting under pressure.
- High early and final strengths.
- Enhances bond to steel tendons.
- Ensures complete filling of cable ducts

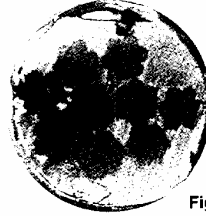


Fig. 1

Section of sheath of post-tensioned cables filled with a cement paste showing bleeding water.

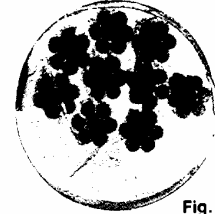


Fig. 2

### Fig. 2

Section of sheath of post-tensioned cables filled with a cement paste containing MEYCO FLOWCABLE (EU). No bleed water is observed.

### Typical properties

Owing to its high flowability, a grout made with MEYCO FLOWCABLE (EU) assures complete filling of ducts, especially among cable strands. This ensures corrosion protection of steel. As this is obtained with a low w/c, the hardened paste is dense, impermeable and, therefore, highly durable. Also, the high cohesion of the fresh mix with almost no water separation, together with freedom from shrinkage and prevents formation of voids, which are often responsible for the penetration of corrosive agents.

Typical improvements in cement grout brought about by MEYCO FLOWCABLE (EU) are shown in Tables 1 and 2.

**Table 1 - Examples of properties of cement pastes containing 6% of MEYCO FLOWCABLE (EU)**

Water % by weight of cement and MEYCO FLOWCABLE(E U)	Flow-Cone Test (sec) CRDC-C-79			Bleed water ASTM C-232 (% by volume)	Water retention ASTM C-91 (%)	Expansion at 2 days ASTM C-878 (µm/m)	Setting times at 30°C		Specific gravity (kg/litre)
	0 min	30 min	1 hr				(Hour:Minute) IST	FST	
34.4	23	33	38	0.13	95.6	450	4:15	4:45	2.030
33.6	23	25.5	34	0.03	97.2	700	4:35	5:05	2.020
29.6	25	27	30	0.00	95.4	500	3:25	3:45	2.045

**Table 2** - Examples of strength and bond to steel of cement pastes containing 6% of MEYCO FLOWCABLE (EU)

Type of cement	Strengths (kg/cm <sup>2</sup> )						Bond to steel (kg/cm <sup>2</sup> ) RILEM – CEB – FIP method	
	1 day		7 days		28 days		7 days	28 days
	Comp	Flex	Comp	Flex	Comp	Flex		
OPC 53 Grade	323	42	528	50	619	52	180	185
OPC 43 Grade	274	38	524	47	671	50	184	188
PPC	231	40	534	65	632	70	200	209

**Specification clause**

The plasticising, expanding grout additive shall be MEYCO FLOWCABLE (EU), a chloride & iron free, cementitious additive. The grout additive shall be capable of providing dual shrinkage compensation and shall exhibit positive expansion at 2 days when tested as per ASTM C878. The additive shall be added at 6% by weight of cement and shall impart bond of cement grout to steel exceeding 15 MPa when tested as per RILEM-CEB-FIP method. The grout additive shall control the bleed in the grout slurry to 0.2% max.

**Directions for use**

MEYCO FLOWCABLE (EU) is a chloride free product. Therefore, the use of potable water and chloride-free cements is recommended.

**Mixing**

Introduce approximately 25 litres of water per 100kg of cement into the mixer. Start the mixer and add MEYCO FLOWCABLE (EU) (6% by the weight of cement) followed by the cement.

Mix for 3 minutes until a plastic and homogeneous mixture is obtained. Add approximately 7 litres of water and mix for a further 2 minutes until the grout is flowable, without lumps. If a high speed mixer is used (about 1500 rpm) the total mixing time can be reduced from 5 to 3 minutes. The amount of mixing water necessary by weight of cement and MEYCO FLOWCABLE (EU) ranges from 30% to 38% depending upon the cement used. The grout thus obtained can generally be pumped for at least 2 hours, unless the cement used shows a rapid or false set.

**Coverage**

A 15kg bag of MEYCO FLOWCABLE (EU) with 250kg of Cement and 95L of water is sufficient to produce 170L of cable duct grout

**Packaging**

MEYCO FLOWCABLE (EU) is supplied in 15kg bags.

**Precautions**

The temperature of walls and spaces where the grout is to be pumped should be between +5 and +40°C for

optimum results. If the temperature is outside this range, consult your BASF representative.

**Storage and Shelf life**

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 6 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice please consult BASF's Technical Services Department.

**Safety precautions**

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

**Note**

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

**Disclaimer**

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