

COLAS PRODUCTS DATA SHEET

COLAS C45



Colas C45 is a pre-mixed cement based non-shrink bedding mortar suitable for the support of road ironwork and highway furniture.

When placed the mixed mortar will harden in approximately 10 minutes. The compressive strength gain will reach 20N/mm² within 45 minutes allowing early opening of roads to vehicular traffic. The self-contained product only needs to be mixed with water on site and the rapid setting assists the re-bedding of manhole frames and the setting of new frame systems.

The product is chloride free and can be safely used with cast iron and steel units.

WHERE TO USE?

- Re-bedding of raised manhole frames
- Bedding of frames in new roads
- Support of road furniture

PREPARATION

Laitance and all loose material including dust, oil and grease should be removed in order to produce a sound substrate. The work area should be pre-wetted taking care to remove any standing water before placing the **Colas C45** mortar.

Excess water should not be added once setting of the mortar has commenced and further mixing should not be used to re-work the mix.

The mortar should be placed within approximately 10 minutes of mixing. The working time may be extended in cold conditions and may be slightly shortened in hot conditions.

APPLICATION

To achieve the most consistent mortar mix, mechanical mixing is recommended. Thorough hand mixing is suitable but care should be taken to ensure that the mix is fully wetted out without the use of excess water. Mechanical mixing may be carried out in a suitable vessel using a slow speed high torque drill and Mortar Stirrer. Hand mixing may be carried out using a clean spot board or wheelbarrow. Each 25kg bag of **Colas C45** requires to be mixed with 3.3 litres of water to give a mortar consistency.

Set suitable levelling shims onto the working surface ready to receive the frame or unit.

Place the mixed mortar onto the prepared surface and lower the frame or unit onto the mortar and knock down onto the pre-set shims to line and level. The bed thickness laid in a single application should be between 15- 75mm. Thicker support beds can be achieved by applying further material as soon as the lower bed has hardened sufficiently not to damage the original bed.

The placed mortar will have hardened sufficiently to carry out further work, such as haunching, within 20 minutes depending on the ambient conditions. Alternatively thicker beds may be formed by adding clean dry pea shingle up to a maximum of 30% of the weight of the **Colas C45**. No additional water is required for mixing.

Curing: No special curing is required at temperatures between 5°C and 35°C. For placing at temperatures outside this range, contact our National Sales Office.

COVERAGE

Each 25kg bag of **Colas C45** will enable a manhole frame 600mm x 600mm to be raised approximately 25mm.

The volume yield of each 25kg bag of **Colas C45** is approximately 12.75 litres.

PACKAGING

Colas C45 is supplied in 25kg sack bags (50 x 25kg bags per pallet) and 25kg buckets (40 x 25kg per pallet).

STORAGE

Colas C45 will have a shelf life of 6 months when kept in dry conditions at a temperature of 5°C to 35°C.

STANDARDS

Colas C45 has been tested in accordance with appropriate parts of EN 12390. The product conforms to DTp: HD 27/15. Design Manual for Roads and Bridges V7 Sec2 3.11. Mortars for bedding ironwork such as manhole cover frames during repairs may be trafficked when the strength has reached 20N/mm². For rapid construction, this strength should be achieved within 2 hours. **Colas C45** will achieve the required strength of 20N/mm² within 45 minutes at a temperature of 20°C.

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PERFORMANCE

Compressive Strength (Water addition: 2.75 litres per 25kg of **Colas C45**).

Typical Mortar Properties @ 20°C		
Compressive strength	45 mins	20MPa
	60 mins	25MPa
	1 day	35MPa
	7 days	45MPa
	28 days	55MPa
Density	2,200 kg/m ³	
Approx. working life @ 20°C	10 mins	

Variations in water content and ambient temperature for particular applications may alter mortar consistency and compressive strength achieved.

SAFETY

For full safety information please request the **Colas C45** Safety Data Sheet 119 using the contact information below.

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