

# C40 Wi MORTAR DATASHEET

**C40 Wi Mortar is a premixed blend of dried sand, fine aggregate, cements and additives in a mix specially designed as a structural infill within Wi Columns, Wi Beams and Wi Trough Lintels. This product is manufactured under a registered ISO 9001 Quality System.**

The patented Wi System utilises bespoke concrete-aggregate blocks to enable the construction of integral reinforced concrete columns, beams and lintels within blockwork panels, which eliminate the need for traditional windposts, or lintels. C40 Wi Mortar acts as the structural concrete infill to the bespoke blocks, acting with the rebars to create Wi Columns, Wi Beams and Wi Trough Lintels.

## Instructions for Use

This product is ready to use – just add clean water and mix using a traditional concrete mixer. Over-mixing should be avoided.

## Coverage

25kg of dry powder will yield approximately 0.014m<sup>3</sup> of Wi Mortar when mixed.

## Authority

The Wi Mortar is manufactured under a Quality Management System complying with ISO 9001.

## Formats

- Silo delivered to site by CPI
- Bulk bag – nominal 1T
- 25kg bag

## Mixing Guidance

As a guide, the water content can range between 2.5 and 2.8 litres/25kg to achieve a consistency similar to bricklaying mortar, which is desirable. Refer to Table 1:

Table 1: Slump and water content range:

Slump	Water Content	Water added	W/C
25mm	2.2 Litres/25kg	8%	0.32
40mm	2.4 Litres/25kg	8.8%	0.35
50mm	2.5 Litres/25kg	9%	0.36
75mm	2.6 Litres/25kg	9.5%	0.38
100mm	2.8 Litres/25kg	10%	0.41
130mm	3.1 Litres/25kg	11%	0.45

The 3.1 Litres/25Kg is a maximum water content; our tests show that strengths of 45-55N/mm<sup>2</sup> are normally achieved with this mix.

If a concrete slump test is conducted on the Wi Mortar, then as long as the slump is between 25mm-130mm, the water to cement ratio would be acceptable and the Wi Mortar should achieve its C40 design strength.

Once mixed and ready for use, Wi Mortar will remain useable for 1-2 hours, depending on weather conditions. Note, additional water should not be added.

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## Wi Mortar Volume Calculator

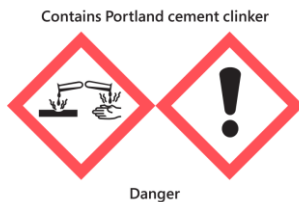
Dry weight of Wi Mortar required for Wi Columns, Wi Beams and Wi Trough Lintels

Wi Column	Volume/linear m
100mm	47kg
140mm	60kg
190mm	89kg
215mm	91kg

Wi Beam/ Wi Trough Lintel	Volume/linear m
100mm	17kg
140mm	23kg
190mm	31kg
215mm	49kg

### Hazard statements

- Causes serious eye damage – **H318**
- Causes skin irritation – **H315**
- May cause an allergic skin reaction – **H317**
- May cause respiratory irritation – **H335**



### Precautionary statements

- Keep out of reach of children – **P102**
- Wear protective gloves/protective clothing/eye protection/face protection – **P280**

If in eyes:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTRE, or doctor/physician – **P305+P351+P338+P310**

If on skin:

Wash with plenty of soap and water. If skin irritation or rash occurs get medical advice/attention – **P302+P352+P333+P313**

Avoid breathing:

dust/fumes/gas/mist/vapours/spray:

If inhaled:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE, or doctor/physician – **P261+P352+P340+P312**

Dispose of contents/containers to appropriate waste collection point – **P501**

### Supplemental information

Skin contact with wet cement, fresh concrete or mortar may cause irritation, dermatitis or burns.

May cause damage to products made from aluminium or other non-noble metals.

### Storage conditions & soluble chromium (VI)

This product must be stored in unopened bags, clear of the ground in cool, dry conditions and protected from wind, rain and external physical damage.

If stored correctly as detailed above and used within the declared shelf-life on this bag the activity of the reducing agent should be maintained and this product should contain, when mixed with water, no more than 0.0002% (2ppm) soluble chromium (VI).

If this product is used after the end of the declared shelf-life the chromium (VI) content may be more than 2ppm. Use of cementitious products containing more than 2ppm (VI) is prohibited, unless in closed, totally automated processes (Control of Substances Hazardous to Health (Amendment) Regulations 2004).

Contact us for more information

**0208 903 4527**

[office@wembleyinnovation.co.uk](mailto:office@wembleyinnovation.co.uk)

[www.wembleyinnovation.co.uk](http://www.wembleyinnovation.co.uk)

Wembley Innovation, 38A Fourth Way, Wembley, HA9 0LH