

Mixing Guide

Concrete

Sharp (concreting) sand should be used, together with 20mm maximum size coarse aggregate and the minimum amount of water necessary for placement and compaction. Excess mixing water reduces both strength and durability of concrete. Use of separate sand and coarse aggregate is preferable to all-in aggregate (ballast). The following table gives nominal mix proportions by volume for general applications.

General purpose mix application:

For most uses except foundation work and outdoor paving.

	Proportions by volume	Amount per m³ (approx)
Cement	1	310kg
Sand	2	665kg
20mm aggregate	3	1130kg
All-in sand and gravel or ballast	4	1785kg

Paving mix application:

For all exposed in-situ paving – e.g. pool surrounds and driveways.

	Proportions by volume	Amount per m³ (approx)
Cement	1	385kg
Sand	1½	575kg
20mm aggregate	2½	1150kg
All-in sand and gravel or ballast	3½	1725kg

Foundation mix application:

For footings, foundations and bases for precast paving.

	Proportions by volume	Amount per m³ (approx)
Cement	1	265kg
Sand	2½	690kg
20mm aggregate	3½	1100kg
All-in sand and gravel or ballast	5	1800kg

Once in place, concrete requires moisture to develop its full strength and premature drying out must be avoided. In normal conditions and at temperatures in excess of 10°C, concrete should be cured under damp conditions for 1 to 3 days (cover with curing membrane, plastic sheeting or wet hessian); at temperatures below 10°C, this curing time should be doubled. Curing is particularly important with CEM II cements as early strengths may be slightly lower than for CEM I products. Protection of fresh concrete against freezing is essential and placement under such conditions should be avoided if possible.

Concrete using Rugby® High Strength and Rugby® Sulfate Cement

For more information on mixing guides using our specialist cements, please visit www.cemex.co.uk/rugby where you will be able to download specific product datasheets with mixing guidelines. Alternatively please call our sales Customer Service Centre on 0808 145 1900.

Mortar

Rugby+ range of cements are fully compatible with hydrated lime and the plasticising admixtures used to produce high workability mortars for use in brick/block laying and rendering. However, the production of mortar on site with Rugby® Premium will require less admixture due to its formulation.

	Cement:Sand (with plasticiser)	Cement:Lime:Sand	Equivalent BS EN 998-2 Mortar Class
General usage (low rise housing)	1:5	1:1:5	M 2,5
Strong (free standing walls)	1:3	1:½:4	M5

Mortar using Rugby® Fast Set Cement and Rugby® White Cement

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Rendering

In rendering applications, it is important when applying two-coat renders (normal practice) that the second coat is either thinner or weaker than the scratch coat to avoid problems with shrinkage and de-lamination. A suitable sand for rendering should be chosen. Mix proportions for rendering over strong and moderately strong backgrounds are given below.

	Cement:Sand (with plasticiser)	Cement:Lime:Sand
First coat (strong backgrounds)	1:3	1:½:4
First coat (moderate backgrounds) or Second coat (moderate and strong backgrounds)	1:5	1:1:5

Rendering using Rugby® White Cement

For more information on mixing guides for render using Rugby® White cement, please visit www.cemex.co.uk/rugby where you will be able to download a specific product datasheet with mixing guidelines. Alternatively please call our sales Customer Service Centre on 0808 145 1900.



General purpose concrete	●	●											● ●			
Below ground concrete/DPC	●		●	●												
Cold weather concreting			●	●		●										
Precasting						●										
Mortar	●	●	●	●		●	● ○	● *						● ●		
Screeding	●	●	●	●										● ●		
Render	●	●	●	●		●	● ○	● *						● ●		
Enhanced sulfate resisting			●													
Enhanced freeze/thaw durability	●															
Decorative/light finish						●										
Concrete/mortar repair work	●	●				●										
Fixing fence posts					●					● ●	● ●					
High strength				●		●										
Rapid concrete path repair					●											
Floor screeds/UFH leveller									● ●							
Block paving jointing														●		
Driveway/path patch repair															●	

Key: ● Recommended for best performance ● Suitable for this application ○ Mix with Rugby cements ● Just add water

*Heritage lime mortar restoration work

Product range – ready to use



- Improved resistance of hardened mortar or concrete to freeze-thaw cycles

100% WATERPROOF PACKAGING



- Quality and consistency you can rely on
- Flexibility and compatibility for every job
- Available nationwide

When you need bagged cement that delivers big on quality and consistency, you can rely on Rugby to meet your needs.

Since 1862 we've been producing cement of unparalleled quality that's backed by a dedicated support and sales team and reliably delivered when you need it.

And with Fast Set now joining Premium Cement in **100% waterproof packaging**, along with a wide range of cement and other bagged products, there's flexibility and compatibility... whatever the job.

For further information please contact Customer Services on:

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www.cemex.co.uk/cement



**SEE OUR FULL
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- Use for domestic, commercial, industrial concreting projects

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