

# Hanson 40N Concrete

## Technical Data Sheet



### INTRODUCTION

Hanson 40N Concrete (C32/40N) is prepared by blending Hanson Cement CEM I 52.5N (to BS EN 197), with Regen GGBS (to BS EN 15167) and aggregates (conforming to BS EN 12620).

Hanson 40N Concrete meets to the requirements of BS 8500, for a CEM III/A+SR, with additional attributes that enhance sulfate resistance.

The use of this revised formulation will also:

- prevent damaging alkali silica reaction
- prevent delayed ettringite formation
- significantly reduce the rate at which deleterious chemicals, such as chlorides can penetrate the concrete, preventing other damaging reactions such as corrosion of embedded steel reinforcement.

The mix proportions are designed to achieve a mean strength in excess of 40N when the product is mixed to a target consistence of S2 (50-90 mm) slump.

The mixture has been designed to meet requirement of BS 8500 Concrete, but conformity cannot be attributed to this Standard since conformity is based upon the performance of the mixed concrete. To establish conformity, on-site testing of the mixed concrete is required.



### MIX DESIGN

Material	Proportions
CEM I 52,5N	9%*
Regen GGBS	9%*
Fine Aggregate	27%
Coarse Aggregate	55%

\*Total combined cement/binder content approx. 380kg/m<sup>3</sup>

### BENEFITS OF USE

Hanson 40N Concrete is a pre-packed high strength concrete and is an ideal solution for a whole range of building projects requiring a concrete with high compressive strength. The benefits of pre-packed concrete include:

- Easy to use – just add water.
- Saves time – quick and convenient.
- Economic – less waste than some other methods.
- Quality – guaranteed product quality.

## APPLICATION

When mixed with approximately 2.5 litres of water, a MaxiPack25 will produce approx. 0.010m<sup>3</sup> of concrete and cover:

- 0.13m<sup>2</sup> @ 75mm thick
- 0.10m<sup>2</sup> @ 100mm thick.

When mixed with approximately 2.0 litres of water, a MaxiPack20 will produce approx. 0.008m<sup>3</sup> of concrete and cover:

- 0.10m<sup>2</sup> @ 75mm thick
- 0.08m<sup>2</sup> @ 100mm thick.

## INSTRUCTIONS FOR USE

For best results, mix thoroughly using a mechanical mixer, empty the bag of Hanson 40N Concrete into the mixer and blend until uniform. Slowly add clean water until the desired consistency or slump characteristics are achieved.

Alternatively, empty the bag of Hanson 40N Concrete onto a clean, flat moisture resistant surface, such as a mortar tray. Slowly add clean water until the desired consistency or slump characteristics are achieved, by thoroughly mixing with the aid of a shovel or similar.

Please note: The contents of the bag may segregate during transport and handling. To ensure satisfactory performance, the entire contents of the bag should be mixed thoroughly. If only part of the bag is required at a time mix together the entire contents on a clean, dry surface. Return surplus to the bag or other suitable container.

Avoid adding too much water whilst mixing as this will weaken, affect the setting time, and affect the durability of the concrete mix.

All surfaces to be worked should be free from oil, grease and any loose material.

The area where concrete is to be placed should be prepared to prevent loss of moisture from the wet concrete.

For best results, use the concrete within 30 minutes of mixing with water. Protect newly laid concrete from the weather until fully hardened. Concrete strengths are improved by keeping the concrete damp during hardening.

Application temperature: +5°C to +35°C.

## ADDITION OF OTHER MATERIALS

Hanson 40N Concrete is a pre-packed concrete. The addition of admixtures is not recommended and could adversely affect the performance of the finished product.

## PACKAGING

Hanson 40N Concrete comes in an easy to handle, fully waterproof all weather bag.

## STORAGE CONDITIONS AND SOLUBLE CHROMIUM (VI)

- This product must be stored in unopened bags clear of the ground in cool dry conditions and protected from excessive draught.
- If stored correctly, as detailed above, the chromium (VI) in this product will be within required levels for up to 12 months from the date shown on the bag.
- Use of this product after the declared storage period, as detailed above, may increase the risk of an allergic reaction following direct contact with skin.



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