

Polyester Resin Fast Setting Bedding Mortar

Information

Ultracrete PY4 – two component, fast setting, polyester resin based mortar, part of the **BBA/HAPAS** approved Ironwork Reinstatement System, with a proven track record over many years, particularly effective as a bedding mortar for ductile and heavily trafficked ironwork. In addition, **Ultracrete PY4** can achieve 60 N/mm² compressive strength in one hour and is suitable for use as a bedding material for rapid construction in accordance with HA 104/02, clause 6.1.HA104/02.

Technical

Ultracrete PY4 is supplied as a complete pack and to avoid unnecessary waste, each pack is divided into 2 equal parts (2 x resin, 2 x activator/filler). Always use 1 tin of resin to 1 pack of filler/activator. When laying the material a minimum thickness of 5mm to a maximum of 50mm should be observed.

Preparation

All surfaces must be dry free from loose particles. Any contamination of oil, grease, paint, etc. must be removed. Always work on a sound and level substrate.

Mixing

Ultracrete PY4 should be mixed by forced action mixer or by vigorous hand mixing with an appropriate tool. Add one tin of resin to one unit of filler/activator (or 2 to 2). Pour resin from the tin into the outer bucket and slowly add the filler until an homogeneous mix is attained. Do not part mix material. Use immediately after mixing.

Placing

The bedding material should be immediately placed on the supporting structure allowing a 5mm excess thickness and used within 4 minutes of mixing. The frame should be lowered into position using a suitable lifting device and placed on the bedding mortar, ensure it is fully supported and check that the frame does not overhang the mortar at any point. Care should be taken to avoid voids in the bedding material under the frame, particularly in the vicinity of the cover seating. Do not try to re-mix once initial hardening is evident. Do not lay in standing water.

Precautions

- Avoid skin and eye contact.
- Avoid inhalation of dust and vapour.
- Wear protective clothing.
- Mix only enough material to apply in 4 minutes.
- Clean tools frequently.
- Dispose of any unused material and empty containers in a safe approved manner.



Features & Benefits

Ultracrete PY4 produces a stiff supporting mortar, making it particularly effective as a bedding mortar for ductile ironwork, gullies and street furniture.

- Rapid strength gain.
- Depths of 5-50mm should be observed.
- Excellent compressive and tensile strengths.
- Can be applied at 0°C.
- Open to traffic in 40 minutes.
- Complies to Department of Transport Design Manual for Roads & Bridges: 'Mortars for bedding ironwork' HA 104/02.
- Manufactured under a Quality Management System BS EN ISO 9001:2000.

Recommended Applications

Rapid installation and reinstatement of manhole frames, gully grates, kerbs and street furniture. Highly recommended for ductile ironwork.



Related Products – BBA/HAPAS Approved

Ultracrete M60	Rapid strength Bedding Mortar.
Ultracrete QC10	Rapid strength backfill concrete.
Ultracrete IRR	Permanent cold lay macadam (Type 2, 3 & 4 Roads).
Ultracrete SCJ	Bitumen cold joint sealer.
also	
Ultracrete Instaline	Thermoplastic marking repair.
Ultracrete Instaband	Skid resistant overbanding tape.

Health & Safety

Resin components have a flash point of 32°C. Keep containers closed when not in use. Avoid inhalation of fumes and work in well-ventilated areas. The use of barrier creams, protective clothing, including gloves, goggles and facemask are recommended.

Ultracrete PY4 can be removed from the skin by washing with plenty of water. If swallowed do not induce vomiting, seek immediate medical attention. Keep out of the reach of children.

Typical Lab Result – Ultracrete PY4

Age	Curing Temperature	Compressive Strength (N/mm ²)	Tensile Strength (N/mm ²)
1 hour	20°C	60.0	7.41
2 hours	20°C	70.0	7.83
28 days	20°C	85.0	9.91
Workability	5 – 10 minutes*		
Set Time	15 minutes*		

*Depending on temperatures – test carried out at 20°C. Cool temperatures retard, warm temperatures accelerate



Design Manual for Roads & Bridges

Complies with Highways Agency Document HA104/02

Chamber Tops & Gully Tops for Road Drainage and Services

Volume 4, Section 2

Part 5, HA104/02

- Which States:**
- The material should be non-shrink.
 - The materials should have a minimum workable life of 15 minutes.
 - The compressive strength should exceed 30N/mm² in 3 hours.
 - The tensile strength should exceed 5N/mm² in 3 hours.

Unit/Packaging	25kg Poly tubs delivered on polythene shrink wrapped pallets.
Storage	Store in a dry place at temperatures between 5° – 30°C. Shelf life in correct conditions for sealed tubs is 6 months. Store in dark area away from oxidising materials. High temperatures and high humidity will lead to a reduced shelf life.
Yield	12.5 litres (approximately)
Colour	Golden Brown

For updated Material Safety Data information visit www.instarmac.co.uk

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