



ULTRACRETE PY4/PY5

Polyester Resin Mortar

TECHNICAL

Both **Ultracrete PY4 & PY5** are supplied as complete packs and in order to avoid unnecessary waste, each pack is divided into two equal parts.

Always use 1 tin of resin to 1 pack of filler/activator. When ordering, please state winter or summer grade and whether **Ultracrete PY4** or **PY5**. When laying the material a minimum thickness of 5mm to a maximum of 50mm should be observed.

PREPARATION

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



Use of PY5 for anchoring dowels and bars:

Ultracrete PY5 is only suitable for anchoring vertical bars due to the products free flow nature. Holes should be either drilled using percussion drill or scabbled to provide roughened faces. Pre-formed holes should be scabbled to provide a key. Ensure that holes are free from water, dust and any other debris that might affect bond. Dowels or bars to be used should always be either deformed or threaded, smooth bars are not recommended.

MIXING

Add one tin of resin to the pack of filler/activator (*or 2 to 2*). Pour contents of tin into the outer bucket and slowly add the filler until a homogeneous mix is attained. Do not part mix material. Apply immediately after mixing.



A polyester resin with a proven track record over many years, particularly effective as a bedding mortar for ductile or heavily trafficked ironwork. **Ultracrete PY4** produces a stiff supporting mortar while **Ultracrete PY5** produces a flowable material suitable for filling, bonding and securing.

- ◆ Rapid strength gain
- ◆ Excellent flexural & 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"
- ◆ Manufactured under a Quality Assurance Scheme BS EN ISO 9002: 1994

RECOMMENDED APPLICATIONS

- ◆ Rapid installation of manhole frames, gully grates, kerbs & street furniture.
- ◆ Ideal for installation of ductile ironwork
- ◆ Anchoring dowel bars.

Setting new standards in cement, resin and bitumen based products.

TECHNICAL ADVISORY SERVICE

Instarmac Group plc provides on site consultancy and technical assistance. We are delighted to work closely with Specialist Contractors.

PLACING

Apply the mixed material immediately after mixing. Do not try to re-mix once initial hardening is evident. Do not lay in standing water.

PRECAUTION

- ◆ Clean tools frequently.
- ◆ Mix only enough material to apply in 5 minutes.
- ◆ Wear protective clothing.
- ◆ Avoid skin and eye contact.
- ◆ Avoid inhalation of dust and vapour.
- ◆ Dispose of unused material and empty containers in a safe approved manner.

HEALTH & SAFETY

Resin components have a flash point in excess of 100°C. Keep containers closed when not in use. Cleaning solvent should not come into contact with skin or eyes. 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 & PY5** can be removed from the skin by using a suitable cleansing cream, soap and water. If swallowed do not induce vomiting, seek immediate medical attention. Keep out of the reach of children.

TYPICAL LAB RESULTS - PY5

Age	Curing Temperature	Compressive Strength (N/mm ²)	Flexural Strength (N/mm ²)	Tensile Strength (N/mm ²)
1 hours	20°C	84.31	21.0	7.28
2 hours	20°C	91.81	20.7	8.56
7 days	20°C	97.75	-	12.47
28 days	20°C	99.25	-	-
Workability: 5 – 10 minutes*				
Setting Time: 15 minutes*				

TYPICAL LAB RESULTS – PY4

Age	Curing Temperature	Compressive Strength (N/mm ²)	Tensile Strength (N/mm ²)
1 hours	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 temperature*



The Department of Transport
Design Manual for Roads & Bridges

HD 27/94

3.11 Mortars for bedding ironwork such as manhole cover frames during repairs may be trafficked when the strength is expected to be 20 N/mm². For rapid construction, this strength should be achieved within 2 hours.

ANCILLARY PRODUCTS

- ◆ **Ultracrete QC10**
Rapid strength concrete

- ◆ **Ultracrete IRR**
BBA/HAPAS approved cold lay macadam

- ◆ **Ultracrete SCJ**
Spray applied cold joint sealer for sealing vertical edges

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Packaging	25kg Poly tubs delivered on shrink wrapped pallets
Storage	Store in a dry place at temperatures between 5° -35°C. Shelf life in correct conditions for sealed tubs is 6 months. High temperatures and high humidity will lead to a reduced shelf life.
Yield PY4	12.5 litres (approximately)
Yield PY5	13.0 litres (approximately)
Colour	Golden Brown



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