



Zetacartridge No.2 Styrene Free Polyester Resin

Product Information

Description

Zetacartridge No 2 is a high performance, Fast curing two-part chemical anchoring System based on unsaturated Polyester Resin in vinyl-toluene monomer.

Applications

Suitable for use in concrete, brickwork and stone
 Suitable for fixing wall ties, starter bars, studs & bolts
 Suitable for close edge fixings. Pre-packed 10:1 ratio.
 Chemically resistant, Waterproof & vibration proof.

How to use

Unscrew the cap from the cartridge and screw on the static mixer nozzle. For the 300ml cartridge, unscrew the cap and cut the metal clip off before screwing the mixer nozzle on. Fit the cartridge into the applicator gun and gradually apply pressure to the trigger until the material exudes from the end of the nozzle. You should always waste the first 10ml or so of resin until you get an even colour. Insert the nozzle into the hole & gun the material out, removing the nozzle slowly as the hole fills up. Once sufficient resin is in the hole, release the pressure from the gun and place the stud to be fixed into the hole with a twisting action to ensure full contact between hole, resin & stud. Allow resin to cure fully before loading. Please see label on cartridge for full installation instructions.

Specification Data

Performance data at standard embedment depth in 25n/mm² concrete using grade 8.8 steel

Stud size	Hole size (mm)	Hole depth (mm)	Characteristic load (kn)	Recommended load (kn)	Edge distance (mm)	Spacing (mm)	Min concrete depth (mm)
M8	10	80	26.1	8.7	120	80	110
M10	12	90	32.1	10.7	135	90	120
M12	14	110	43.8	14.6	165	110	140
M16	18	125	51	17	190	125	170
M20	22	170	87	29	255	170	230

Gel & cure times

Temperature Deg. C	Gel time Min	Min Load Time Min.
5	20-25	120
10	12-15	80
20	5-7	45
30	3-5	25

Approximate number of fixings per cartridge

Bolt diam (mm)	Hole diam (mm)	Hole depth (mm)	380ml	150ml
8	10	80	110	30
10	12	90	60	20
12	14	110	40	12
16	18	125	20	8
20	22	170	9	4

Pack Sizes

400ml, 380ml & 300ml Cartridge

Storage Life

At least twelve month from date of manufacture if stored between 5-20 deg. C in manufactures unopened cartridges.

Reduction Factors for Edge Spacing Distances

The full characteristic edge and spacing distances shown in the table above are the minimum allowable for the quoted information. Where these dimensions are not achievable then the appropriate reduction factor / factors from the following tables must be applied.

Edge Distance in Concrete

Edge mm.	Tensile Edge Reduction Factors						Shear Edge Reduction Factors					
	M8	M10	M12	M16	M20	M24	M8	M10	M12	M16	M20	M24
50	0.77						0.50					
60	0.85	0.80					0.60	0.50				
70	0.92	0.87	0.78				0.70	0.58	0.50			
80	1.00	0.93	0.84				0.80	0.66	0.57			
90		1.00	0.89	0.82			0.90	0.75	0.64	0.56		
100			0.95	0.86	0.80		1.00	0.83	0.71	0.62	0.54	
110			1.00	0.91	0.84	0.77		0.92	0.78	0.69	0.61	0.50
130				1.00	0.92	0.83		1.00	0.92	0.81	0.69	0.59
150					1.00	0.90			1.00	0.94	0.81	0.68
170						0.97				1.00	0.94	0.77
190						1.00					1.00	0.86
210												0.95
240												1.00

Spacing in Concrete

Spacing (mm)	Tensile & Shear Reduction Factors					
	M8	M10	M12	M16	M20	M24
50	0.80					
60	0.84	0.80				
70	0.88	0.83	0.80			
80	0.92	0.87	0.83			
90	0.96	0.91	0.86	0.81		
100	1.00	0.93	0.88	0.84	0.80	
110		0.97	0.91	0.87	0.82	0.79
130		1.00	0.96	0.91	0.86	0.82
150			1.00	0.95	0.90	0.85
170				1.00	0.94	0.88
190					0.98	0.92
210					1.00	0.95
240						1.00

Important

Whilst every effort is made to ensure that the information given in this data sheet is reliable, no warranty as to the fitness or suitability of the products is given or implied.

We advise customers in their own interests to ensure that this data sheet has not been superceded by a more up to date publication and to determine the suitability of use themselves..

All products are sold subject to our standard conditions of sale which are available on request.

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Material Data Sheet

Zetacartridge No.2 Polyester Styrene Free Cartridge

1. Substance / Preparation and Company Identification.

Chemical nature : Organic peroxide – cure unsaturated polyester resin in vinyl-toluene monomer grout (in a sealed cartridge)

Company. Zetapro Ltd. Unit B4, Thorne Enterprise Park, King Edward Road, Thorne, Doncaster, DN8 4HU.
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2. Composition / Information of Ingredients

Contains : Unsaturated polyester resin in vinyl-toluene monomer, dibenzoyl peroxide and inert fillers.

No.	% w/w	EINECS No. Case No.	Name	Symbol	Risk Phrases
1	1-10	210-762-8 622-97-9	Vinyl-toluene	Xn,F,N	R10,20,36,37,38
2	2 - 3	202-327-6	Dibenzoyl peroxide	Xi,E	R2,36,43,7

3. Hazard Identification

Note : In use the product presents minimal risk as the material is largely contained within the cartridge system.

Flammable

4. First aid Measures

Skin Contact Incase of skin contact wipe off mechanically, and wash afflicted areas thoroughly with soap and water.

Eye Contact Rinse carefully and thoroughly with water and seek medical advice.

Inhalation Move to fresh air, rest, half upright position, loosen clothing. Seek medical advice after significant Exposure.

Ingestion Do Not induce vomiting because of risk of aspiration. Drink plenty of water
Seek medical advice.

5. Fire Fighting Measures

Extinguishing Media. Dry powder, co2, foam. Do not use Halones.

Exposure Hazards. Flammable. Sealed containers heated can pressurize leading to explosion. Do not breath fumes.

Fire Fighting Equipment Wear self contained breathing apparatus.

6. Accidental Release Measures.

Do not discharge into sewers. Scrape up and place into suitable containers for disposal. Wash area with water and sand.

Refer to sections 5, 8 and 13 for protective measures and disposal

7. Handling and Storage

Handling. Keep away from sources of ignition and heat .Ensure adequate ventilation. Avoid contact with skin and eyes.

Storage. Store in a cool, well ventilated place away from direct sunlight. Store upright.

8. Exposure Control/Personal Protection

Respiratory Protection. Provide adequate ventilation.

Skin Protection. Wear suitable protective clothing at all times.

Eye Protection. Not usually required but goggles or face protection can be worn.

9. Physical and Chemical Properties

	Resin	Catalyst
Appearance	Thick Beige paste	Thick grey paste
Odour	Aromatic	Faint
Density	1.49g/cm ³	1.19g/cm ³
Flash Point	53 degrees C	Above the SADT
Explosive/Oxidising Properties	Lower 1.1%, Upper 5.2 limit	Oxidising
Solubility	Insoluble in water	Soluble in water
Autoflammibility	No data	No data

10. Stability and Reactivity.

- Stability** Product is stable and non reactive whilst in cartridge. The catalyst undergoes self accelerating decomposition at and above 50 Degrees C. The resin can solidify exothermically if heated, exposed to sunlight or air.
- Conditions to avoid.** Resin reacts with strong oxidizing agents and peroxides.
Catalyst reacts with acids, alkalis, reducing agents and heavy metals. Avoid contacts with peroxide accelerators.
- Materials to avoid.** Direct contact with acids, alkalis, reducing agents or heavy metal salts.
- Hazardous decomposition.** Emits smoke and irritating fumes of carbon oxides when heated to decomposition.

11. Toxicology Information

- Resin.** Refer to section 4 of sds for routes of exposure and corresponding symptoms
- Catalyst** Material is classed as a sensitizer and may cause sensitivity to the skin.

12. Ecological Information

Do not discharge into drains or the environment.

13. Disposal conditions

Controlled incineration as chemical waste according to local regulations.

14. Transport

Supply label. Harmful, Flammable, Hazard class 3, Packing group III, UN No.1866.

15. Regulatory Information.

- Labeling** No significant hazard
Risk phrases. R10 Flammable,
R20 Harmful by inhalation,
R36/37/38 Irritant to eyes and skin.
S36/37/39 Wear suitable clothing ,gloves, eye/face protection
- Safety phrases** S2 Keep out of the reach of children,
S35 This material and its container must be disposed of in a safe way.
S46 If swallowed, seek medical advice and show this label.
- Other phrases used** R2 Risk of explosion by shock, friction, fire or other sources of ignition.
R43 May cause sensitization by skin contact

16. Other Information

Date of preparation January 2009

The product should be stored, handled, used and disposed of in accordance with the above guidelines. Users should consider the information as a guideline only and should make there own considerations when using the product in terms of suitability and safety. It should not be construed as guaranteeing specific properties.

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