

Metal Repair Systems



Pump Body

Ultra metal has been used in this case to cosmetically repair an aluminium pump body casting in order to reduce scrap levels due to casting problems.

Typical Applications

- Cosmetic Repair of castings
- Hiding fixings in metal covers
- Alloy wheel repair
- Refurbishment projects
- Chemical Cold Welding

Product Description

restores worn eroded, corroded or damaged metal surfaces bringing them back to full operational use and visual appearance.

Properties

- ◆ Resistant to chemical and physical attack
- ◆ Machinable like metal and can be filed, scraped, milled, turned, bored, screw cut, polished etc.
- ◆ Metallic characteristics are gained from the use of up to 90% metal fillers matched to blend with the base metal even on fine polished surfaces
- ◆ Metal filler selection includes: - steel; aluminium; cast iron; copper; brass; bronze, ceramic etc.

Shelf Life 1 Year

Pack Sizes:

- 150g
- 250g
- 500g
- 1.000g twin pack



Material Selection Criteria

ultrametal is supplied in a two-pack form

- ◆ The metal filler medium
- ◆ Hardener

Each pack contains a mixing cup, spatula, protective gloves and working instructions and cleaning cloth.

Preparation

Create an adhesion area by removing material to form a depth of bed 2mm minimum to 10 mm maximum.

Roughen the bottom of the bed to form a key
Remove all loose debris and grease.

Ensure that any cleaning liquids are removed and the surface is dry and within the acceptable working temperature range, of the nominal, 20°C.

Application

Mixing

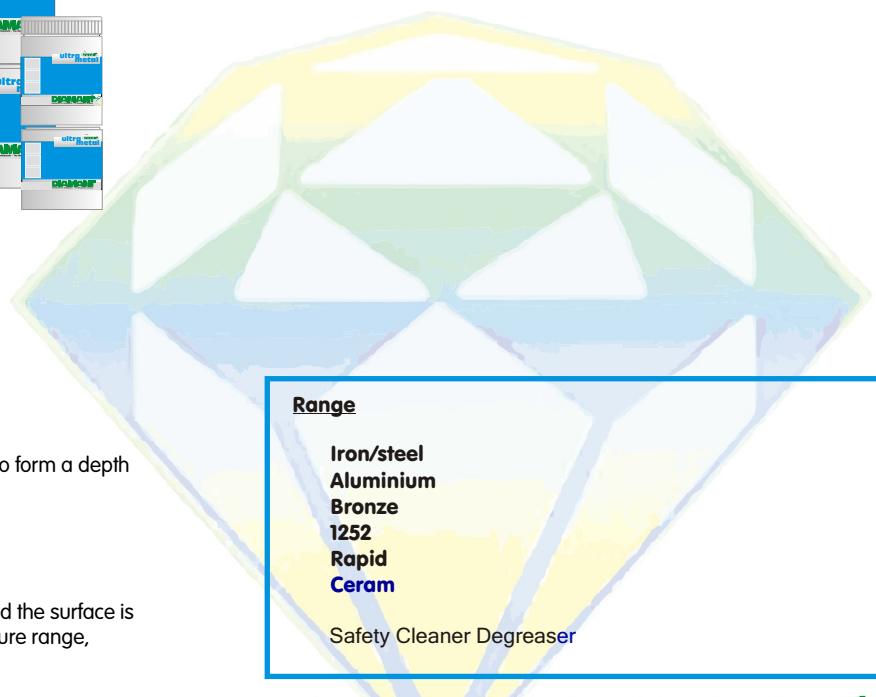
Mix the A and B in equal volumes using the spatula provided. Finish mixing using a metal scraper until the components. Apply within 45 minutes of mixing

Brushing

Apply a thin adhesion layer allows this to partially cure for mins before adding the rest of the material including an excess amount to be machined back to the final dimensions

Cure

Rapid and Normal Cure times available between 0.5 and 24 hours.
Surfaces are usable in 4 hours for light loading or 24 hours for full loading.



Range

- Iron/steel
- Aluminium
- Bronze
- 1252
- Rapid
- Ceram

Safety Cleaner Degreaser



ultrametal	Iron / Steel		Aluminium		Bronze		1250	Rapid	Ceram	
	paste (P)	fluid (FL)	Paste	fluid	paste	fluid	FL/P	FL/P	paste	fluid
Processing time - mins	60		60		60		15	3	60	
Shelf life - months	24		24		24		12	12	24	
Hardness Shore - D	89	87	87	85	86	84	87	86	92	89
Tensile Shear - N/mm ²	22	22.5	18.5	18.7	16.5	16.6	22	16.5	23	23.5
Tensile Strength - N/mm ²	76	76.6	72	72.5	62	62.5	76	60	74	74.5
Bending Strength - N/mm ²	89	87	82	82.5	79.5	80	89	79	88	88.5
Compressive Strength -DIN 53454	160	156	145	141	151	151	160	155	180	176
Impact Strength - DIN 53 453	5.2	5.0	5.4	5.2	5.4	5.2	5.2	5.0	5.8	5.6
E-Modulus -DIN 53457	6000	6000	5800	5800	5800	5800	4200	4000	6500	6500
Post Cure Shrink-mm	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.01	0.004	0.004
Curing time light load -hours	4		4		4		0.5	0.2	4	
Curing time full load -hours-	24		24		24		2.0	1	24	
Temperature resistance- degrees C max.	-32 / +350		-32 / +350		-32 / +350		-40 / +350	-30 / +150	-32 / +350	
Continuos temp. load - degrees C	-32-+160		-32-+160		-32-+160		-40-+160	-30-+100	-32-+160	



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