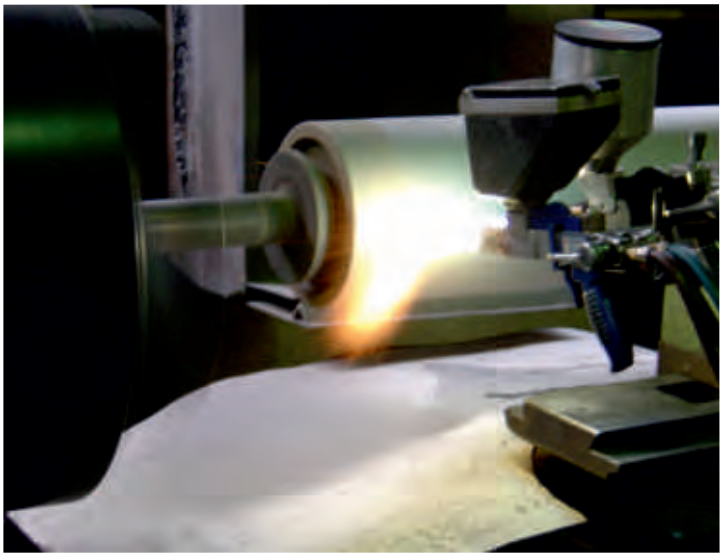
Material Data Sheet

dichtol

The Capillary Sealer to Impregnate THERMAL SPRAY COATINGS

dichtol
is the proven sealer for thermal spray coatings with outstanding product properties.



dichtol
reliably seals cracks and finest pores. The high-performing polymers penetrate deep into the coating and protect the metallic surface against corrosion.

Product benefits

- Deepest possible penetration
- Perform on-the-spot repairs, in-house
- Versatile application of the capillary-active sealing through
  - Dipping
  - Brushing
  - Spraying
- Increased solid contents (up to 40%)
- Transparent, invisible
- Resistant against chemical, thermal and physical loads
  - Pressure-resistance up to 600 bar (8700 psi)
  - Heat-resistance up to 500°C (932°F)
- Drinking water and food approved
- Significantly increases the machinability of the coating

Our products

WFT #1532

For the reliable impregnation of micropores and hairline cracks from approx. 0 to 1/10 mm (0,004 inch) without vacuum or pressure for any kind of alloy.

WFT Macro #1546

For the reliable impregnation of micropores and hairline cracks from nearly 1/10 mm (0,004 inch) to 5/10 mm (0,02 inch).

HTR #0977

For the reliable impregnation of micropores and hairline cracks and temperature resistant up to 500°C (932°F) continuously, also available in spray form.

Approx. 1 hour after application, **dichtol** HTR will have to be heat cured at approx. 250°C (482°F) for approx. 3 hours for full cure.

Thinners

dichtol may change viscosity after a longer period of use, losing penetrating and impregnating properties. Ideal viscosity can be controlled by **dichtol** **Viscometer**; viscosity loss can be compensated by adding the appropiate thinner.

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dichtol has been tested for the reliable use in contact with food and drinking water - underlining the exceptional product properties.

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		WFT FL #1532	WFT Macro FL #1546	HTR FL #0977
Application Data	dipping	X	X	X
	brushing	X	X	X
	filling	X	X	X
	spray can	X	-	-
	spraying chamber	X	-	X
Surface Drying [approx. time in min.]		1	3	-
Surface Layer Thickness [µm (inch)]		3 (0,0001)	10 (0,0004)	4 (0,0002)
Cure Time at 20°C [hours] (load)		light (full)	light (full)	1 hour after dipping anneal at 250°C for 3 hours
up to 5 mm (0,2 inch) wall thickness		4 (24)	6 (24)	
5 - 10 mm (0,2 - 0,4 inch)		8 (24)	10 (24)	
10 - 15 mm (0,4 - 0,6 inch)		13 (48)	15 (48)	
> 15 mm (0,6 inch)		24 (48)	24 (48)	
Technical Data				
Porosity sizes [mm (inch)]		-1/10 (-0,004)	1/10 - 5/10 (0,004 - 0,02)	-1/10 (0,004)
Continuous temp. load [°C (°F)]		-170 / +250 (-274 / +482)	-170 / +250 (-274 / +482)	-170 / +500 (-274 / +932)
Max. short term temp. load [°C (°F)]		-170 / +450 (-274 / +842)	-170 / +350 (-274 / +662)	-170 / +650 (-274 / +1202)
Compressive strength [bar (psi)]		~600 (8700)	~600 (8700)	~600 (8700)
Viscosity at 20°C (68°F) approx. 4mm (0,16 inch) nozzle		14-16 sec.	20-22 sec.	12-14 sec.
dichtol - 1 ltr, 5 ltr, 10 ltr and 200 ltr		X	X	X
Thinner - 0,5 ltr and 1 ltr		X	-	X

All material values are average values and vary due to mixing ratio, material quantity and environmental conditions. The mentioned material values are based on normal conditions (STP) of 20°C (273K / 31,73°F) and 1013mbar (1013hPa).

Preparation

Areas to be impregnated must be clean and dry (surface cleaned mechanically and chemically, then heat treated to remove all remaining materials inside the pores so dichtol can penetrate area).

Application

Applicable by

- dipping into dichtol (e. g. in a container with a tight cover) for 30 minutes
- brushing 3 to 4 times within a short period with a soft brush
- by spraying 3 to 4 times crosswise within a short time period.

Cures at ambient temperature for 1 hour per mm wall thickness (i.e. 8 hours cure time for 8 mm (0,3 inch) wall thickness).

Resistant

ethyl alcohol 96%, ethyl alcohol 50%, ethyl ether, ethyl silicate, 2 ethyl hexanol, ethylene glycol, ammonia conc. 5%, gasoline, butanol, butyl glycol, n-butyl ether, carbitol, chlorine lime sol., diesel oil, diethylene glycol, dipropylene glycol, natural gas, acetic acid conc., acetic acid 10%, frigene, glycol, hexanol, heptadecanol, isopropylene techn., isopropylene ether, isopropylene alcohol, potash lye 10%, potash lye 40%, sodium chloride sol. 10%, lubricating oil, seawater, methanol, methyl amyl alcohol, methyl carbitole, lactic acid conc., lactic acid 10%, soda lye 20%, soda lye 40%, paraffin oil, phenol sol. 10%, phosphoric acid conc., hydrochloride acid 10%, oxygen, sulphuric acid conc., sulphuric acid 30%, sulphuric acid 10%, soap sud, soda lye, tetradecanole, tetra ethylene glycol, triethylene glycol, undecanole.

Limitedly resistant

formic acid conc., formic acid 40%, benzene, carbon tetrachloride, toluene, xylene

Non resistant

acetone, ester, cetone, methylene chloride

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Authorized

DIAMANT - Partner

ANSCHRIFT / ADDRESS:
Diamant Metallplastic GmbH
Hontzlarstr. 12
D - 41238 Mönchengladbach
Germany

VERBINDUNGEN / CONTACT:
TEL. / PHONE: +49 (0)2166 /98 36 - 0
FAX: +49 (0)2166 / 8 30 25
E-MAIL: info@diamant-polymer.de

ZERTIFIZIERUNG / CERTIFIED:
DIN EN ISO 9001 : 2000

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The Metalplastic Company