Material Data Sheet

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.

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**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

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**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 appropriate thinner.

**dichtol** penetrates deep into the coating and reliably seals the pores.

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The Metalplastic Company
The Capillary Sealer to Impregnate THERMAL SPRAY COATINGS

**Application Data**
- **dipping** X X X
- **brushing** X X X
- **filling** X X X
- **spray can** - X
- **spraying chamber** X - X

**Surface Drying**
Surface Layer Thickness [approx. time in min.]

<table>
<thead>
<tr>
<th>FL #1532</th>
<th>WFT Macro FL #1546</th>
<th>HTR FL #0977</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>-</td>
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**Surface Layer Thickness** [µm (inch)]

<table>
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<tr>
<th>FL #1532</th>
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<tr>
<td>3 (0,0001)</td>
<td>10 (0,0004)</td>
<td>4 (0,0002)</td>
</tr>
</tbody>
</table>

**Cure Time at 20ºC [hours] (load)**

- up to 5 mm (0,2 inch) wall thickness
  - FL #1532: 4 (24)
  - WFT Macro FL #1546: 6 (24)

- 5 - 10 mm (0,2 - 0,4 inch)
  - FL #1532: 8 (24)
  - WFT Macro FL #1546: 10 (24)

- 10 - 15 mm (0,4 - 0,6 inch)
  - FL #1532: 13 (48)
  - WFT Macro FL #1546: 15 (48)

- > 15 mm (0,6 inch)
  - FL #1532: 24 (48)
  - WFT Macro FL #1546: 24 (48)

**Technical Data**

<table>
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<th>FL #1532</th>
<th>WFT Macro FL #1546</th>
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</tr>
</thead>
<tbody>
<tr>
<td>-1/10 [-0,004]</td>
<td>1/10 - 5/10 (0,004 - 0,02)</td>
<td>-1/10 [-0,004]</td>
</tr>
</tbody>
</table>

**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)]**
- FL #1532: -170 / +250 (-274 / +482)
- WFT Macro FL #1546: -170 / +250 (-274 / +482)
- HTR FL #0977: -170 / +250 (-274 / +482)

**Max. short term temp. load [°C (°F)]**
- FL #1532: -170 / +450 (-274 / +842)
- WFT Macro FL #1546: -170 / +350 (-274 / +662)
- HTR FL #0977: -170 / +350 (-274 / +662)

**Compressive strength [bar (psi)]**
- FL #1532: ~600 (8700)
- WFT Macro FL #1546: ~600 (8700)
- HTR FL #0977: ~600 (8700)

**Viscosity at 20ºC (68° F) approx. 4mm (0,16 inch) nozzle**
- FL #1532: 14 - 16 sec.
- WFT Macro FL #1546: 20 - 22 sec.
- HTR FL #0977: 12 - 14 sec.

**Technical Data**

- dichtol

**Resistant**
- ethyl alcohol 96%, ethyl alcohol 50%, ethyl ether, ethyl silicate,
- 2 ethyl hexanol, ethylene glycol, ammonia conc. 5%,
- gasoline, butanol, butyl glycol, n-buty ether, carbitol, chlorine
- lime sol., diesel oil, diethylene glycol, dipropylene glycol,
- natural gas, acetic acid conc., acetic acid 30%, frigene, glycol,
- hexanol, heptadecanol, isopropylene techn., isopropylene
- ether, isopropylen alcohol, potash lye 10%, potash lye 40%,
- sodium chloride sol. 10%, lubricating oil, seawater, methanol,
- methyl amyl alcohol, methyl carbitole, lactic acid conc.,
- acetic acid 10%, frigene, glycol, hexanol, heptadecanol,
- isopropylene ether, isopropylen alcohol, potash lye 10%,
- potash lye 40%, sodium chloride sol. 10%, lubricating oil,
- seawater, methanol, methyl amyl alcohol, methyl carbitole.

**Limitedly resistant**
- formic acid conc., formic acid 40%, benzene, carbon
- tetrachloride, toluene, xylene

**Non resistant**
- acetone, ester, cebtone, methylene chloride

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 20ºC (273K / 31,73ºF) and 1013mbar (1013hPa).

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