



# Metaceram® 29011

Machinable Stainless alloy  
2 Step Cold Spray Powder

### Description:

The alloy RotoTec 29011 is a protective coating alloy with a deposit that resists atmospheric corrosion and metal/metal friction. It is also recommended for applications where easy machining is required. The deposit also has excellent anti-seizing properties.

### Technical Data:

	Minimum	Typical
Hardness (HV <sub>10</sub> ):	200	240

### Applications:

Coatings on press and bearing surfaces that are subject to wear through adherence. For all ferrous metals, coppers and aluminium alloys. Coating without deformation, distortion or metallurgical structural changes.

### Procedure for use:

#### Equipment:

The powder RotoTec 29011 is deposited using the RotoTec 80 or CastoDyn DS 8000 torches. Preparation of surface to be coated

#### Cleaning:

To obtain a perfect coating, the surface must be clean and free from grease.

#### Preparatory machining:

The worn area on which the coating will be deposited must be machined down until all the irregularities caused by wear have been eliminated. If the base metal is a hardened or surface treated metal, a carborundum grinder without lubrication should be used for machining. A rough surface is thus obtained on which the coating can then be deposited.

#### Obtaining the bonding surface:

It is recommended to preheat at 50°C-150°C before preparation. Threading by means of cutting tool. The thread is half as deep as the pitch (example: pitch 0.7 mm; depth: 0.35 mm). Grit blasting or grinding is an alternative surface treatment. The areas which are not to be coated should be protected with R 104 solution.

#### Coating:

Spray the bonding layer of alloy Bond Coat 50000. This first deposit should be approximately 0,1 mm thick, obtained in a single pass. 50000 brings about an exothermic reaction so that a solid state metallurgical bonding is obtained, thus making it possible to deposit bonding layers on ferrous metals, coppers and on aluminium alloys. Next, the alloy is deposited, by spraying a layer of 29011 onto this bonding layer until the deposit thickness is 0.3 to 0.5 mm above the final dimension required. During the coating, the temperature of the part must not exceed 200°C.

### Spray parameters:

- Rotation speed (m/min)=.....20-30
- Advance (mm/rev)=.....3

### - CastoDyn DS 8000:

RotoTec 29011	Bond coat	anti-wear coating
<b>Powder</b>	50000	29011
<b>Standard Spray Module</b>	SSM 10	SSM 10
<b>Setting of container mounting</b>	3	4
<b>Flame setting</b>	Neutral	Neutral
<b>Air without extension neck (bar)</b>	0-1	0-1
<b>Air with extension neck (bar)</b>	1	1
<b>Spraying distance (mm)</b>	150	200
Pressure: Ox = 4 bar; Ac = 0.7 bar; Air = -		
Start parameters : adjustments may be needed due to application, piece, equipment, etc.		

### RotoTec 80:

- Valve "A"pos:.....N
- Oxygen:(bar) 4 (58 lbf/in<sup>2</sup>)
- Acetylene:(bar) 0.7 (10 lbf/in<sup>2</sup>)
- Acetylene[ U K ](bar): 0.6 (8.7 lbf/in<sup>2</sup>)
- Spraying distance:(mm) 200.

### Machining:

#### Turning:

RotoTec 29011	Turning with tungsten carbide cutting tool
<b>Type</b>	ISO K10
<b>Rake angle(°)</b>	+5
<b>Relief angle (°)</b>	5
<b>Cutting speed (m/min)</b>	R 50   F 50
<b>Feed (mm/rev)</b>	R 0.1   F 0.08
<b>Depth of cut (mm)</b>	R 0.8   F 0.05
<b>Cooling</b>	none
R=Rough ; F=Finish	

#### Grinding:

With a grinding stone corresponding to 11C80F13VPmF Use a coolant for cutting and grinding.**IMPORTANT:** For additional information regarding machining parameters (turning, planing) or by grinding, consult the brochure "Guide to the machining of E+C TeroCote coatings" Packaging and storage

#### Pack Size:

1.5 kg. Spray Pack  
Safely stack and store products in a dry location to avoid pick up or damage.

# DIGITALWELD

J.D.M Holdings Ltd

Unit D/17 Hobill Avenue, Wiri, Manukau, 2104. P.O Box 97622 Manukau City, Manukau 2241, New Zealand  
Ph: +64 (09) 263 7099 Fax: +64 (09) 263 5062 Email: sales@digitalweld.co.nz Website: www.digitalweld.co.nz