



## CastoPlast® 31200

Polymer Powder for protection against corrosion

**Description:**

CastoPlast 31200, which has the appearance of a white powder, is designed for use as a coating to protect metal components against corrosion, and is applied by thermal spraying.

CastoPlast 31200 consists exclusively of polyamide 11.

**Technical data:**

**Product:**

Fusion point: 185 - 186°C  
 Granulometry: 90% of particles are between 80 and 200 micron  
 Apparent density: 0.49 g/cm<sup>3</sup>

**Coating:**

Deposit density: 1.04 g/cm<sup>3</sup>  
 SHORE D hardness: 75  
 PERSOZ hardness (NF T 30016): 280 + 10 sec.  
 ROCKWELL R hardness: 106 (ASTM D 785)  
 Thermal endurance: ≈<300°C  
 Breaking stress: 5.3 kg/mm<sup>2</sup>  
 (Measured from separated film)

Breakdown voltage: 35 KV/mm (approx.)  
 Service temperature: up to 100°C

Protection applicable on all metals and alloys as well as, in given conditions, on concrete, brick, stone, glass, wood, etc.

Good resistance to UV rays.  
 Good electrical insulator.  
 Good for rebuilding, even to a considerable thickness.  
 Good impact resistance.  
 Good friction resistance, even under great pressure.  
 Good compression behaviour.  
 Withstands abrasion.  
 Good mechanical properties.

**Applications:**

Protective and decorative coatings, extra protection for corrosion resistant materials, corrosion protection in urban environment, corrosion protection in rural environment, corrosion protection in marine environment, corrosion protection in chemical environment, protection of parts in contact with foodstuffs.

**Procedure for use:**

CastoPlast 31200 can be delivered by means of the CastoDyn DS 8000 or TeroDyn 2000 torch.

**Surface preparation:**

Degrease carefully with a suitable industrial solvent, observing the relevant environmental protection standards. Follow up with shot-blasting, grit-blasting or grinding, as necessary, taking care however to avoid grinding wheels with organic binders.

The surface roughness which will provide the most effective adhesive conditions for CastoPlast is 30 microns.

**Preheating:**

Preheat the area to be coated to about 200°C, using a tip size best suited to the size of the work piece.

It is absolutely imperative to use compressed air

If at all possible the torch should be automated so as to maintain constant spraying distance and advance.

**Important :**

Make sure you take the necessary precautions to protect both yourself and those around you, following the recommendations of the manufacturer and of your employer.

Above 300°C, these products can form Co<sub>2</sub>, NH<sub>3</sub> and various amine derivatives, but industrial use of these products involves no risk in normal circumstances. Polyamides are inert polymers, and may be safely handled by following the correct, recommended procedures. Take care to wear protective glasses, and a face mask to protect against dust! Make sure the workplace is sufficiently ventilated, and if possible use some device such as a fume extractor to keep the working area free from gas and fumes harmful for breathing.

CASTODYN DS 8000		
	Without extension neck	With extension neck
Standard spray Module	D type	D type
Sequential module-holder	6	6
Air focus nozzle	CFN 0 type	CFN 0 type
Compressed air (pressure)	4.0 bar	4.0 bar
Acetylene (pressure)	0.7 ± 0.1 bar	0.7 ± 0.1 bar
Acetylene (valve)	neutral	neutral
Spray distance	200-300 mm	200-300 mm
Peripheral speed	20-25 m/min	20-25 m/min
Advance per revolution	3-8 mm/rev	3-8 mm/rev
Deposit thickness per pass	0.2 - 0.4 mm	0.2 - 0.4 mm

TERODYN 2000	
Oxygen Pressure / Flow	350kPa / 28
Acetylene Pressure / Flow	85kPa / 32
Nozzle	LT250
RotoJet	LT Shroud @ 150-210kPa
Module Adapter	Red/Yellow
T Valve	5-10
Spray Distance (mm)	175-225
Coating Rate	2-3.5 Kg/h

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