PROXON 21071

One step alloy powder for the cold spray process. For rebuilding of worn parts, machinable coating.

Description:
Proxon 21071 is a powder developed for spray delivery system such as the RotoTec 80, TeroDyn 2000 and the DS 8000.
For the protective coating of various alloys, steels and other industrial materials.
No distortion of the work piece or alteration to its dimensions and structure.
Unaffected by residual stresses.
Homogeneous deposit hardness.
Excellent sliding characteristics.
Good corrosion resistance.
Easy to machine.

Technical data:	Minimal	Typical
Deposit hardness (HV_{10}):	100	120
Max. service temperature (°C):	-	450
Deposit thickness (mm):	*-*	*max. 5*

Applications:
The dense lamellar structure and excellent bonding properties of Proxon 21071 are ideal for the protective coating of:
Slides.
Friction bearings.
Guides.

Procedure for use:
The area to be coated should be readily accessible so that the optimum spraying angle (90°) is maintained. For example in blind holes and similar, the flame gases could be trapped causing turbulence in the spray particles and thus defects in the protective coating.

Preparation:
The area to be coated must be clean and free of dirt and grease. Any sharp edges or corners should be eliminated or rounded off. Where possible the preparation should include slight preheating to remove any moisture from the surface. Roughening either by grit blasting, grinding or threading should be carried out while the part is still warm. Ceramic grinding wheels should be used for grinding. Care must be taken to keep the base metal clean after this preparation.

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

Coating procedure:
The work piece should be coated immediately after preparation of the surface, while the part is still warm. As Proxon 21071 is self-bonding no special bonding layer is necessary.

NOTES
- Maximum temperature during coating is 260° C.
- The RotoJet model specified must be used.
- "T" Valve click settings are approximate; adjust as required to obtain coating rate shown. Turn valve clockwise until it seats, open counter-clockwise to click setting shown.

RotoTec 80 with ProXon-module adaptator.

Standard spray parameters for the RotoTec 80			
	RotoTec 80	Extension	+ CastoJet
Oxygen pressure (bar)	4.0	4.0	4,0
Acetylene pressure (bar)	0.7± 0.	0.7 ± 0.1	0.7 ± 0.1
Acetylene valve	Oxidising (O)	Oxidising (O)	Oxidising (O)
Spraying distance (mm)	150	150	150
Peripheral speed (m/min)	20-30	20-30	20-30
Advance (mm/tour)	3-5	3-5	3-5
Thickness per pass (mm)	0.1-0.2	0.1-0.2	0.1-0.2
Air pressure (bar)	2-4	Max. 2.0	2-4

Typical spray parameters for the CastoDyn DS® 8000	
	anti-wear coating
Powder	21071
Standard Spray Module	SSM 10
Setting of container mounting	3
Flame setting	Neutral
Air without extension neck (bar)	0-1
Air with extension neck (bar)	1
Spraying distance (mm)	150
Rotation speed (m/min)	20
Advance (mm/rev)	3
Pressure: Ox = 4 bar; Ac = 0.7 bar; Air = 0-6 bar	
Start parameters adjustements may be needed due to application, piece, equipment, etc.	

Terodyn 2000

	Bond	**Build up**	**High**	**Internal**
Oxy Kpa.	350 Kpa	350Kpa	350 Kpa	350Kpa
Oxy Flow	30	30	30	35
Acet Kpa.	80 Kpa	80 Kpa	80 Kpa	80 Kpa
Acet Flow	48	48	48	48
Nozzle	RL 200	RL 200	RL 200	RL 210
Air jet	RPA3	RPA3	RPA3	TEK200
Air KPA	30kpa	275 Kpa	275Kpa	200Kpa
Module Adapter	Aqua	Aqua	Aqua	Red Yellow
T Valve	6-8	40	40	6-8
Spray Distance	175mm-200mm	175mm-200mm	175mm-200mm	180mm-210mm

NOTES
- Check coating rate before starting job. Rate should be within ± 10% of coating rate shown.
- No special bond pass is required with this alloy. Bond and build-up passes should be made with parameters shown.
- After bond pass, air pressure can be increased to 350KPa.

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