



Proxon 21032S

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

Description:

Proxon 21032S is a nickel-based alloy developed specifically for spray delivery systems such as the RotoTec 80, TeroDyn 2000 or CastoDyn DS 8000.

For the protective coating of various alloys, steels and other industrial materials.

- Unaffected by residual stresses
- Suitable for coating on large surfaces
- Excellent sliding characteristics
- Easy to machine
- Excellent bonding
- Homogeneous deposit hardness
- Excellent resistance to corrosion at high temperature
- No distortion of the work piece or alteration to its dimensions and structure.

Technical data:

	Minimum	Typical
Deposit hardness (HRC):	30	34
Max. Service temperature (°C):	-	900
Deposit thickness (mm):	-	max. 3

Applications:

The dense lamellar structure and excellent bonding properties of Proxon 21032S are ideal for the protective coating of:
Heat exchangers, boilers, gas turbine blades, mixer paddles, protective shaft sleeves, sealing areas.

Packaging and storage:

ProXon 21032s is available in TeroPak of 1.5 kg weight.
Safely stack and store products in a dry location to avoid pick up or damage.

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 workpiece should be coated immediately after preparation of the surface, while the part is still warm. As Proxon 21032S is self-bonding no special bonding layer is necessary.

RotoTec 80 with ProXon-module adaptor.

	RotoTec 80	Extension	+ CastoJet
Oxygen pressure (bar)	4.0	4.0	4.0
Acetylene pressure (bar)	0.7±0.1	0.7 ± 0.1	0.7 ± 0.1
Acetylene valve	Neutral (N)	Neutral (N)	Oxidising (R)
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)		Max. 2.0	Max. 2.0

CastoDyn DS 8000

Powder	21032
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)	-
Rotation speed (m/min)	20
Advance (mm/rev)	3
Pressure: Ox = 4 bar; Ac = 0.7 bar; Air = 0-6 bar	
Start parameters adjustments may be needed due to application, piece, equipment, etc.	

Terodyn 2000

	Bond	Build up	High	Internal
<u>Oxy Kpa.</u>	350 Kpa	350Kpa	500 Kpa	350Kpa
<u>Oxy Flow</u>	30	30	32	35
<u>Acet Kpa.</u>	80 Kpa	80 Kpa	80 Kpa	80 Kpa
<u>Acet Flow</u>	48	48	75	48
<u>Nozzle</u>	RL 210	RL 210	RL 210	RL 210
<u>Air jet</u>	RPA3	RPA3	RPA2	TEK200
<u>Air KPA</u>	200 Kpa	200 Kpa	200Kpa	200Kpa
<u>Module</u>	Red	Red	Red	Red
<u>Adapter</u>	Yellow	Yellow	Yellow	Yellow
<u>T Valve</u>	12-14	12-14	16-18	14-16
<u>Spray Distance</u>	125mm-175mm	125mm-175mm	125mm-175mm	50mm-150mm

NOTE

1. Maximum temperature during coating is 260° C.
 2. The RotoJet model specified must be used.
 3. "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.
 4. Check coating rate before starting job. Rate should be within ± 10% of coating rate shown.
 5. 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. After bond pass, air pressure can be increased to 350KPa.

DIGITALWELD

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