

An Atomized Titanium Dioxide Alloy

MetaCeram® 25040



COATING

- Two-step “Cold Process” powder
- Excellent resistance to abrasion, cavitation and corrosion
- Offers a low coefficient of friction with most mating surfaces
- Precise particle sizing ensures coating consistency



DESCRIPTION:

25040 is titanium dioxide (TiO₂) powder which is designed for use with high energy combustion thermal spray equipment like the TeroDyn® 2000 or conventional plasma spray processes. The coatings produced are hard, dense, exhibit excellent resistance to wear caused by abrasive particles and offer a low coefficient of friction with most mating surfaces.

TECHNICAL DATA:

Coating Properties:

Typical macro-hardness: Rockwell 15N Scale, 88

Typical density: 3.7 g/cc

Max. service temperature: 1000°F (538°C)

Typical micro hardness: DPH_{300g} 800

Powder Properties:

Carney flow rate: 12 seconds

Bulk density: 1.8 g/cc

Powder coverage: 0.021 lbs/ft² @0.001"

Typical melting point: 3340°F (1806°C)

FINISHING PROCEDURE:

Coatings of MetaCeram 25040 should be rough ground with 120 grit silicon carbide or 150 grit diamond wheels. Finish grind using a 400 grit diamond wheel.

TYPICAL APPLICATIONS:

- Ship Screws
- Impellers
- Turbine Blades
- Pump Sleeves

RECOMMENDED COATING & SPRAY PARAMETERS:

BOND COAT MUST BE USED: 50000 or 21031 is recommended

TD 2000*	
Nozzle	RL 210 or RL 210-W
Module Adaptor	Aqua
RotoJet	RPA 3@40psi air
Oxygen	50 psi / 35 flow (FM-1 flowmeter)
Acetylene	12 psi / 75 flow (FM-1 flowmeter)
T-Valve Setting	6 clicks
Coating Rate	3.0 lbs/hr
Deposit Efficiency	90%
Spray Distance	4-6 inches

TD 3000*	
Nozzle	RL 210 or RL 210-W
Terometer	50
Oxygen	50 psi / 38 flow (3110 flowmeter)
Acetylene	12 psi / 62 flow (3110 flowmeter)
Carrier Gas	Ni or Ar @ 55 psi
Coating Rate	2.5 lbs/hr
Deposit Efficiency	85%
Spray Distance	3-4 inches

CDS 8000*	
Nozzle	SSm 30
Powder Module	1-2
Compressed Air	40-45 psi
Rotational Speed	~130 sfpm
Advance	~.2 in/rev
Spray Distance	~4 inches

*Pre-heat of 300°F (150°C) minimum must be maintained at all times until final build-up is reached. A maximum temperature of 500°F (260°C) should not be exceeded during the build-up.

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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CERTIFICATION DE PRODUIT / PRODUCT CERTIFICATION

À/To: **Eutectic Edmonton**

N^o: **5821000**

ATT: **PURCHASING**

FAX:

Bon de Commande du Client	Customer's Purchase Order
Bulletin de Vente de Eutectic	Eutectic Sales Order Number SA 00405
Type de Produit	Product Type Thermal Spray Powder
Nom du Produit	Product Name 25040
Code d'Item	Item Code 25040-1K
No. de C. Q. et/ou No. de Lot	Q.C. No. and/or Batch No. PBK1991
Quantité	Quantity 12.00 Kg
Spécification	Specification

1) Analyse
Analysis

Élément Element	% par poids by weight
SiO ₂	0.05
Fe ₂ O ₃	0.025
Al ₂ O ₃	<0.02
CaO	0.009
MgO	0.005
TiO ₂	BALANCE
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-

Élément Element	% par poids by weight
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-

2) Dimension Particule
Particle Size

Tamis US US Sieve	% par poids by weight
40	-
60	-
80	-
100	-
120	-
140	-
170	-
200	-
230	-
270	0.0
325	1.5
400	-
-400	-

Microtrak (µm)	% passe passing
-15	1.0
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
D ₅₀	-
sd	-

3) Taux d'écoulement / Flow Rate	-	s 50 g
4) Densité Apparente / Apparent (Hall) Density	1.9	g / cm ³
5) Densité Tassée / Bulk Density	-	g / cm ³
6) Dureté / Hardness	-	HRC
7) Dureté Écroui / Work hardness	-	HRC
8) Indice d'Usure / Wear Factor	-	Mm ⁻³

Ridha Arous

Authorized Person(ne) Autorisée

Ridha Arous

Signature

2018-12-12

Date