

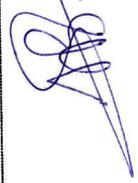
FABRICATION DIVISION
Welding Development & Technology

Date: 05, Jan 2015

Technical Specification No: FBM/WD&T/TS06 Rev 01

Technical Specification for HVOF Coating Powder WC10Co4Cr

S. No	Description	Requirement	Vendor	Offered	Deviation (if any)	Remarks
1	General					
1.1	Chemical Composition (Nominal Range in percentage by weight)	WC-10Co-4Cr Cobalt: 8.5 % - 11.5 % Chromium: 3 % - 5% Carbon: 4.8% - 6% Total All Others: 0.5 % (max) Tungsten: Balance	Vendor to confirm. (Detailed Technical catalogue/data sheet with mention of properties to be submitted with offer.)			
1.2	Manufacturing	Agglomerated and Sintered				
1.3	Shape	Spheroidal				
1.4	Particle size	- 45 to + 15 microns				
1.5	WC Particle Size	≤ 0.8 microns				
1.6	Flow ability	Free flow type				
1.7	Apparent Density	> 4.5 g/cc				
2.1	Brand		Vendor to Specify			
2.2	Country of origin					


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S. No	Description	Requirement	Vendor	Offered	Deviation (if any)	Remark
3	Physical Properties of powder	Vendor may provide parameters for Wokastar 600 Gun of M/s Oerlikon Metco Make system (formerly known as Sulzer Metco) to achieve below properties.	Vendor to confirm. (Data sheet with mention of properties to be submitted with offer.)			
3.1	Hardness (0.3 Kg Load)	1250-1500 Hv 0.3				
3.2	Porosity	< 1%				
3.3	Bond Strength:	10000 Psi or more (ASTM C 633)				
3.4	Roughness:	< 6 Ra				
3.5	Deposition Efficiency	: > 45%				
3.6	Service temperature	Vendor to Specify				
4	The above powder should be compatible with liquid fuel based and Gas fuel based HVOF system		Vendor to confirm			
5	Test certificate/Data Sheet	Test certificate from original powder manufacturer for each batch supplied with specific mention of properties as mentioned at clause 1 to be provided. Test certificate/Data Sheet of properties as mentioned at clause 3 to be provided by Original powder manufacturer.	Vendor to confirm			
6	Correspondence	In case of authorized vendor quotes for the tender then the following must be met: All Technical correspondence and confirmation shall be done with their principal supplier (Original powder manufacturer). Original powder manufacturer shall provide to BHEL the dispatch details (Bill of loading/GR/RR/AWB) along with packing list of the material All liability for quality of product shall be of principal.	Vendor to confirm			

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