SECTION - C

TECHNICAL SPECIFICATIONS OF STORES AND DRAWINGS.

Technical Specification of 2G HTS tape

Sr. No.	Parameters	IPR Specifications
Tape Composition		
1.	Lamination	Copper laminated
2.	Superconducting Material	2G HTS tape
3.	Dimensions and tolerances	The vendor should mention the layered structure details of the tape along with the dimensions and tolerances
Physical Dimensions		
4.	Nominal width	4-12 mm
5.	Acceptable thickness of the tape	≤ 200 µm
6.	Single piece length in a lot	~ 100 m
7.	Total Length Required	~ 600 m
Electrical properties		
8.	Critical Current(I_C) at 77 K and at self-field	> 400 A (considering 1 µV/cm as Electric field criterion)
Mechanical properties		
9.	Minimum Bend diameter at 77 K	≤ 40 mm with 95% I_c retention
Acceptance criteria		
10.	Physical Dimensions	The physical dimension of the tape should comply with Sr. No. 4 and 5.
11.	Critical Current (I_C)	The critical current of the tape should satisfy the specifications. The vendor should provide test certificate of the tape mentioning its critical current at 77 K and self-field.
12.	Sample Tape	The vendor is required to supply 1 m of sample tape along with the quotation. The critical current of the sample tape will be measured @77 K and self field at IPR (verify the sample performance as per the Sr. No. 8). After satisfactory result of the tested sample, only qualified vendor will be communicated accordingly.
13.	Dispatch Clearance	Once the 2G HTS tape is ready to dispatch, the vendor has to send test certificate (as per the Annexure-1) of HTS tape along with the photographs of each lot to IPR for approval. Only after vendor is allowed to dispatch the material.
14.	Final acceptance based on tests at IPR	Final acceptance of the tape will be done after measurement and verification of critical current of the tape at 77 K and self -field in straight and bend condition as mentioned in the specifications at IPR from each lot.
15.	Delivery schedule	Material should supply within 4 months from the date of purchase order.

Annexure-1

Sr. No.	Test	Required Values
1.	Critical Current (I_c) measurement of HTS tape in straight condition @ 77 K at self field	> 400 A @ 77 K at self field
2.	Critical current (I_c) measurement of HTS tape in bend condition (bending diameter ≤ 40 mm) @ 77 K at self field	~ 95% of I_c at straight condition

Technical Compliance Statement of 2G HTS tape

Sr. No.	Parameters	IPR Specifications	Vendor Specification
Tape Composition			
1.	Lamination	Copper laminated	
2.	Superconducting Material	2G HTS tape	
3.	Dimensions and tolerances	The vendor should mention the layered structure details of the tape along with the dimensions and tolerances	
Physical Dimensions			
4.	Nominal width	4-12 mm	
5.	Acceptable thickness of the tape	≤ 200 μm	
6.	Single piece length in a lot	~ 100 m	
7.	Total Length Required	~ 600 m	
Electrical properties			
8.	Critical Current(I_C) at 77 K and at self-field	> 400 A (considering 1 μV/cm as Electric field criterion)	
Mechanical properties			
9.	Minimum Bend diameter at 77 K	≤ 40 mm with 95% I_c retention	
Acceptance criteria			
10.	Physical Dimensions	The physical dimension of the tape should comply with Sr. No. 4 and 5.	
11.	Critical Current (I_C)	The critical current of the tape should satisfy the specifications. The vendor should provide test certificate of the tape mentioning its critical current at 77 K and self-field.	
12.	Sample Tape	The vendor is required to supply 1 m of sample tape along with the quotation. The critical current of the sample tape will be measured @77 K and self field at IPR (verify the sample performance as per the Sr. No. 8). After satisfactory result of the tested sample, only	

		qualified vendor will be communicated accordingly.	
13.	Dispatch Clearance	Once the 2G HTS tape is ready to dispatch, the vendor has to send test certificate (as per the Annexure-1) of HTS tape along with the photographs of each lot to IPR for approval. Only after vendor is allowed to dispatch the material.	
14.	Final acceptance based on tests at IPR	Final acceptance of the tape will be done after measurement and verification of critical current of the tape at 77 K and self -field in straight and bend condition as mentioned in the specifications at IPR from each lot.	
15.	Delivery schedule	Material should supply within 4 months from the date of purchase order.	

The compliance statement should be provided duly filled with exact technical values against each specifications rather than mentioned OK, YES, CONFIRM, AGREE, ACCEPTABLE, COMPLY etc.

Authorised Signatory

Official Seal

Date :-