



THIN WALL TUBE (TWT & TWT-F) SPECIFICATION SHEET

	Characteristics	Requirement	Frequency	Control Method
	Product Control			
1	Visual	Good and free from defects	100% - daily	Internal
2	Dimensions	As per Dimension Table	5 samples - daily	Internal
3	Concentricity	min 70%	3 samples - daily	Internal
4	Longitudinal Change	±5%	3 samples - daily	Internal
5	Tensile strength	min 10.4 MPa (N/mm ²)	5 samples-routine	ASTM D 638
6	Ultimate elongation	min 200%	5 samples-routine	ASTM D 638
7	Heat Shock (200°C, 4 hours)	no splitting, cracking, dripping or flowing	Qualification	ASTM D 2671
8	Dielectric strength	min 20 kV/mm	Qualification	IEC 60243
9	Tensile strength after thermal ageing (158°C, 168 hrs)	min 7.3 MPa (N/mm ²)	Qualification	ASTM D 2671
10	Ultimate elongation after thermal ageing (158°C, 168 hrs)	min 100%	Qualification	ASTM D 2671
11	Volume resistivity	min 10 ¹² ohm.cm	Qualification	IEC 60093
12	Flammability (for TWT-F only)	self-extinguishing	Qualification	ASTM D 2671
13	Secant modulus	max 173 MPa	Qualification	ASTM D 2671
14	Water absorption	max 1%	Qualification	ISO - 62
		Frequency	Agency	
	Daily	- Routine test during production	In-house	
	Qualification	- Whichever is earlier of the following	External or In-house	
		a. At the time of introduction of new product		
		b. After a significant change in formulation		
		c. Every three years		
	Compounding	- For compounding of every batch of material.	In-house	