Sub: data for SDOTE case in vendor registration portal for Neoprene rubber sheet Ref:PV letter no. 3210/Gen/PV/M1, dt. 22/10/2024

With reference to the above the required data for manufacturing technology and testing /inspection facility of Neoprene rubber sheet (Item code: 2103870004) is given below:

- 1. <u>Manufacturing technology:</u> Neoprene is produced by free-radical polymerization of chloroprene. In commercial production, this polymer is prepared by free radical emulsion polymerization. Polymerization is initiated using potassium persulfate. Bifunctional nucleophiles, metal oxides (e.g. zinc oxide), and thioureas are used to crosslink individual polymer strands. Sheeting is done with help of rollers with checker finish profile.
- 2. Inspection facility: Neoprene rubber sheet shall be subjected to inspection by and to the approval of the Quality assurance officer/Quality assurance authority. There should not be any foreign material inclusion as well as porosity/void in the rubber sheet.
- 3. **Test requirements:** Mechanical properties are required to be tested on test button made from the representative batch.

	Characteristics	Specified
1.	Tensile Strength (KN/M ²), Min	4500
2.	Elongation%, Min	100
3.	Thickness, mm	1.5 +0.5
4.	Physical Appearance	Black colour
5.	Dimension of one sheet	Length: 1215 ± 5 mm
		Width: 375 to 380 mm

The material shall consist of essentially of Neoprene rubber in the form of a wax free, both side mat finish(for proper bonding/adhesion) sheet with no stretch mark and dimensions should strictly uniform throughout.

4. Testing Equipments/ facility:

a) For testing mechanical properties: Universal testing machine (UTM) to be used for evaluating TS, EL. (Essential)

b) For testing dimensions: Scale and vernier caliper to be used for measuring length, width of the sheet and thickness.

c) The visual inspection shall be carried out to check the physical appearance & mat finish (both side) of the neoprene rubber.

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