

**CENTRAL LEATHER RESEARCH INSTITUTE, ADYAR, CHENNAI-600 020**  
**TESTING CHARGES OF CATERS**

**05.11.2016**

S. No.	Test Particulars	Charges/per sample (Rs.)
I.	<b>LEATHER</b>	
	1. Chromic oxide	600.00
	2. Colodium	1000.00
	3. Differential number	500.00
	4. Moisture	500.00
	5. Nitrogen & hide substance	500.00
	6. pH of water solubles	250.00
	7. Solvent extractable substance	500.00
	8. Solvent extractable substance & FFA	1000.00
	9. Specific gravity (density)	500.00
	10. Spew observatory test	500.00
	11. Sulphated ash of water soluble	600.00
	12. Total ash	500.00
	13. Total ash, hide substances (protein), % of water soluble organic and fat (or) degree of tannage	2100.00
	14. Volatile matter	500.00
	15. Water insoluble ash	600.00
	16. Water soluble chlorides	500.00
	17. Water soluble matter/ wash content	300.00
	18. Water soluble organics substances	600.00
	19. Water soluble sulphate	500.00
Restricted substances in Leather		
	1. Azo dyes	3500.00
	2. Chlorophenol (tri, tetra & penta)	5000.00
	3. Chrome VI content	1000.00
	4. Chrome VI content - (after ageing)	1500.00
	5. Chrome VI content - (before & after ageing)	2000.00
	6. DMFu	5000.00
	7. Ethoxylated alkylphenol (nonyl & octyl)	4000.00
	8. Formaldehyde content (chemical)	3000.00
	9. Formaldehyde content (leather)	1000.00
	10. Nickel release	1000.00
	11. Organotins	4000.00
	12. PAH	4000.00
	13. PCB (polychlorinated biphenyle)	5000.00
	14. PCP (pentachlorophenol)	2000.00
	15. Pesticides	5000.00
	16. Phenol	2000.00
	17. Phthalates	2000.00
	18. Preservatives (TCMBT, PCMC, OPP, OIT)	6500.00
	19. Short chain chloro paraffins (C <sub>10</sub> -C <sub>13</sub> )	4000.00
	20. Tetrachlorophenol	2000.00
	21. Trace elements (per element)	1000.00

	22. Tri & Tetrachlorophenol	3000.00
	23. Trichlorophenol	2000.00
II.	<b>A. ASSAY % Purity tests for :</b>	
	1. Concentration or active meter	600.00
	2. Formic acid	1000.00
	3. Lime	2000.00
	4. Sodium chloride	2000.00
	5. Sodium formate	2000.00
	6. Sodium hydrosulphide	2000.00
	7. Sodium sulphate	2000.00
	8. Sodium sulphide	2000.00
	9. Sodium thiosulphate	2000.00
	10. Sodium-bicarbonate	2000.00
	11. Sodium-bisulphite	2000.00
	12. Solid content	600.00
	<b>B. Purity Analysis</b>	
	1. Acrylamide	1250.00
	2. Benzene	1250.00
	3. Methacrylic acid	1250.00
	4. Naphthalene	1250.00
	5. Toluene	1250.00
III.	<b>Auxiliary</b>	
	<b>A. OIL/FATLIQUOR ANALYSIS</b>	
	1. Acid value*	250.00
	2. Fatliquor analysis	2000.00
	3. FFA*	250.00
	4. Iodine value*	250.00
	5. Saponifiable matter*	250.00
	6. Solvent extractable substance	750.00
	7. Unsaponifiable matter*	250.00
	<b>B. WATER</b>	
	1. Water analysis (for tanning industry) (pH, total alkalinity, total hardness, iron, manganese, chlorides.)	1500.00
	2. Water hardness	750.00
IV.	<b>Tanning Material</b>	
	<b>A. Chrome Tanning</b>	
	1. Basicity of chrome	600.00
	2. BCS (Cr <sub>2</sub> O <sub>3</sub> , pH, moisture, basicity)	1500.00
	3. Chrome content (Cr <sub>2</sub> O <sub>3</sub> )	600.00
	4. Chrome VI content	1000.00
	5. Free sulphate	600.00
	6. Sulphur	1000.00
	<b>B. Vegetable Tanning</b>	
	1. Ash content	500.00
	2. Iron content	1000.00
	3. pH of water solubles	250.00
	4. Tannin analysis	1500.00

	<b>C. Syntan</b>	
	1. Ash content	500.00
	2. Iron content	1000.00
	3. pH of water solubles	250.00
	4. Tannin analysis	1500.00

**\* Solvent extractable substance analysis is pre-requisite.**

<b>LEATHER &amp; LINING MATERIAL</b>		<b>SHOE</b>		<b>SOLING MATERIAL</b>	
Adhesion of finish	1200	Abrasion resistance of sole	1200	Abrasion resistance	1200
Apparent density Ability	500	Back height / quarter height	400	Adhesion strength	1200
Break / pipiness	400	Buckle attachment strength	800	Bennewart /Bata belt Flexing	1200
Breaking load	700	Colour fastness to rubbing	800	Thickness and cleat height	400
Coating adhesion	1200	Electrical resistance	800	Compression set	1000
Cold crack resistance	700	Eyelet -facing strength	800	Density	500
Collodium test	500	Eyelet- security	800	Hardness	500
Colour fastness to perspiration	800	Heel pull off strength	1000	Heat shrinkage	800
Colour fastness to water	800	Nail penetration	800	Oil resistance	1200
Contact storage	700	Perspiration/ water fastness	800	Ross flexing-room temp. / low temp.	1200
Flexing resistance – Bally / vamp	1200	Seam strength	800	Slip resistance	5000
Flexing resistance – low temp.	1200	Slip resistance	5000	Hydrolysis resistance (PU sole)	3000
Hydrolysis resistance (PU coated)	3000	Sole bond strength, inside outside	1200	Tear Strength	800
Heat fastness	800	Strap attachment strength	800	Tensile strength / extension	800
Lastometer	800	Heat ageing	3000	<b>TAPE MATERIAL</b>	
Light fastness	5000	Toe load	800	Adhesion strength	1200
Martindale abrasion	1200	Toe puff / bond strength	1200	Breaking load	800
Needle perforations strength	800	Top piece attachment strength	800	Water fastness	800
Oil Repellency test	1200	Top piece turning strength	800	<b>TOE PUFF/COUNTER</b>	
Qualitative peel test	500	Water resistance–whole shoe	1700	Adhesion strength	1200
Rub fastness – Veslic	800	Weight/Mass	400	Resilience, moisture resistance	1750
Rub fastness - Circular	800	Whole shoe flexing	1700	Breaking strength & extension	800
Rub fastness, - Crock meter	800	Whole sole bond strength	1200	<b>LACE</b>	
Seam strength	800	Whole top line strength	800	Abrasion resistance	1200
Sole leather - Abrasion resistance	1200	<b>INSOLE-FORE / BACK PART</b>		Breaking load	800
Sole Leather - Grain crack index	800	Abrasion resistance	1200	Knot slippage	800
Sole Leather – WA-Kubleka	800	Cushioning properties	1500	Light fastness	5000
Sole leather – Water resistance	1000	Density	500	Tag retention strength	800
Stitch tear strength	800	Dimensional stability	800	Water fastness	800
Stretch and flex resistance	1200	Flexing index	1200	Wick test	500
Tear strength	800	Heel pin holding strength	800	<b>BUCKLE</b>	
Tensile strength / extension	800	Peel strength	800	Corrosion resistance	800
Thickness / Substance	200	Scuff resistance	1200	Strength of fastened buckles	800
Water penetration (Bally)	1000	Surface water absorption	800	Three point bend strength	800
Water penetration (Maeser)	1000	Tensile strength / extension	800	<b>STEEL SHANK</b>	
Water spotting	500	Transverse tensile strength	1200	Fatigue resistance	1200
Water vapor absorption	800	Stitch tear strength	800	Hardness (Rockwell)	500

Water vapour permeability	1200	Water absorption & desorption	800	Stiffness	800
Water vapour permeability & coeff.	1200	<b>SAFETY SHOES</b>		<b>ADHESIVE</b>	
Weight/ Mass	400	Electrical resistance	800	Adhesion characteristics	1200
Wicking test	500	Flexing resistance of midsole	1200	Solid content	500
Wrinklometer	300	Fuel oil resistance	1200	<b>VELCRO</b>	
Silica gel effectiveness	500	Heat / cold resistance of shoe	800	Needle perforation	800
Shrinkage temp	500	Heel pin holding strength	800		
Heat ageing	3000				
<b>ZIP</b>		Hot contact for sole	800	Peel strength initial & after wear	1600
Burst strength	800	Inter layer bond strength	1200	Shear strength initial & after wear	1600
Closure under lateral load	800	Nail penetration for steel mid sole	800	Colour fastness	800
Colour fastness to rubbing	800	Slip resistance	5000	Water fastness	800
End stop st. (top, bottom, stringer)	800	Toe cap- Compression resistance	800	<b>INDUSTRIAL GLOVES</b>	
Fatigue resistance	1000	Toe cap- Corrosion resistance	800	Abrasion resistance	1200
Lateral load	800	Toe cap- Impact resistance	800	Tear strength	800
Needle perforation	800	Toe cap-internal length	400	Water vapour permeability	1200
Puller strength	800	<b>EYELETS</b>		Seam strength	800
Slider locking strength	800	Abrasion resistance	1200	<b>ELASTICS TAPE</b>	
Water / perspiration fastness	800	Attachment strength	800	Flexing resistance	1200
THREAD		Security of eyelet	800	Limit of useful extension	1000
Breaking load	1000	Colour tarnishing test and	800	Needle perforation strength	800
Tex value	500	Corrosion resistance		Rub fastness	800
Water / perspiration fastness	800			Water fastness	800

**GST @ Actual [ 18% ]**

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