Group,

Plot No. 37, KIADB Industrial Area, Baikampady, Mangalore,

Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7142 (in lieu of T-2259 & T-2260) Page 1 of 6

Validity 07.06.2018 to 06.06.2020 Last Amended on --

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are	Range of Testing / Limits of Detection
			performed	

CHEMICAL TESTING

I.	PLASTICS & RESINS			
1.	Polymers like	Qualitative Analysis by	ASTM E 1252	4000 cm ⁻¹ to 450 cm ⁻¹
	Rubbers, Plastics,	FTIR		
	Resins, Paints &	Compositional Analysis	ASTM E 1131	Wt. Loss: 0 % to 100%
	Coatings	by Thermogravimetry		Residual DL: 1µg
	Additives used in	Transition Temperatures	ASTM D 3418	-50 °C to 450 °C
	Polymer like	and Enthalpies of Fusion		
	Lubricants &	and Crystallization of		
	Fillers	Polymers by Differential		
	Processing Aids,	Scanning Calorimetry		
	Antioxidants & UV	Oxidative Induction Time	ASTM D 3895	0.5 minutes to
	Stabilizers	of Polyolefin's by DSC		200 minutes
2.	Pigments &	Mercury (Hg)	IS 9833	0.01 mg/kg to 100
	Colorants for			mg/kg
	use in Plastics in	Cadmium (Cd)		0.01 mg/kg to 100
	contact			mg/kg
	with Food Stuff,	Lead (Pb)		0.01 mg/kg to 250
	Pharmaceuticals			mg/kg
	and Drinking	Chromium (Cr)		0.01 mg/kg to 100
	Water			mg/kg
		Antimony (Sb)		0.01 mg/kg to 50 mg/kg
		Barium (Ba)		0.01 mg/kg to 500
				mg/kg
		Arsenic (As)		0.01 mg/kg to 250
				mg/kg
		Zinc (Zn)		0.01 mg/kg to 100
				mg/kg
		Selenium (Se)		0.01 mg/kg to 50 mg/kg

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3.	Pigments & Colorants in	Mercury (Hg)	AP 89 (1)	0.01 mg/kg to 100 mg/kg
	Plastics Materials coming into	Cadmium (Cd)		0.01 mg/kg to 100 mg/kg
	contact with Food	Lead (Pb)		0.01 mg/kg to 250 mg/kg
		Chromium (Cr)		0.01 mg/kg to 100 mg/kg
		Antimony (Sb)		0.01 mg/kg to 50 mg/kg
		Barium (Ba)		0.01 mg/kg to 500
				mg/kg
		Arsenic (As)		0.01 mg/kg to 250 mg/kg
		Selenium (Se)		0.01 mg/kg to 50 mg/kg
4.	Plastic Bottles/Containers	Migration Test	IS 9845	0.1 mg/dm ² to 10 mg/dm ²
5.	Polymers like Rubbers, Plastics,	Fluorescent UV Exposure of Plastics	ASTM D 4329	Qualitative
	Resins, Additives Paints & Coatings	UV Resistance Test for HDPE/PP Food Grain Bags	IS 14887	Qualitative
		Fluorescent UV Exposure for Non Metallic Materials	ASTM G 154	Qualitative
		Method of Exposure to Laboratory Light Sources-Part-1 & 3	ISO 4892	Qualitative
		Fluorescent UV Exposure for Photodegradable Plastics	ASTM D 5208	Qualitative
		Fluorescent Condensation Exposure of Paint &	ASTM D 4587	Qualitative

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		Related Coatings		
		Fluorescent UV and Condensation for Exterior Part of Automotive Materials	SAE J2020 JIS D 0205	Qualitative
		Xenon Arc Exposure of Plastics Intended for Outdoor Applications	ASTM D 2565 ASTM D 4459	Qualitative
		Xenon Arc Exposure Test with Enhanced Light & Water Exposure for Transportation Coatings	ASTM D 7869	Qualitative
		Accelerated Exposure of Automotive Interior Trim Components	SAE J2412	Qualitative
		Accelerated Exposure of Automotive Exterior Components	SAE J2527	Qualitative
		Accelerated Exposure of Automotive Exterior Paints & Varnishes	ISO 16474-1	Qualitative
		Pigment & Extenders- Methods of Dispersion & Assessment of Dispersibility	DIN EN 13900	Qualitative
II.	COSMETICS & ESS	ENTIAL OILS		
1.	Oils (Perfumes)	Compounds Identification (Fragrance oil) Perfumes	KSPPL-SSG/TM-15 (TM/GCMS/01) Issue No: 01 Issue Date: 09 Jan 2014	Qualitative

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			Amendment No :01 Amendment Date: 09 May 2016	
III.	FOOD & AGRICULT	URAL PRODUCTS		
1.	Edible Oil- Palm Oil	Fame Analysis (GC) Lauric acid Myristic acid Palmitic acid Palmitoliec acid Stearic acid Oleic acid Linoleic acid Archidic acid Cis-II Eicosenoic acid	TM/GCMS/06 Issue No: 01 Issue Date : 09 Jan 2014	0.0025 wt% to 0.06 wt%
2.	Edible Oil- Sunflower oil	Fame Analysis (GC) Palmitic acid Palmitoleic acid Stearic acid Oleic acid Linoleic acid Arachidic acid Cis II Eicosenoic acid Behenic acid	TM/GCMS/06 Issue No: 01 Issue Date : 09 Jan 2014	0.0025 wt% to 0.06 wt%

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MECHANICAL TESTING

I.	POLYMERS & PLASTICS			
1.	Polymers like Foams Rubbers, Composites &	Determining the Izod Impact Resistance of Plastics		
	Plastics	Notched	ASTM D 256	0.1 J to 20 J
		Unnotched	ASTM D 4812	0.1 J to 20 J
		Notched	ISO180A	0.1 J to 20 J
		Unnotched	ISO180eU	0.1 J to 20 J
		Determining of Charpy Impact Resistance of Plastics		

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		Notched	ISO 179-1A	0.1 J to 20 J
		Unnotched	ISO 179-1eU	0.1 J to 20 J
		Determination of Tensile Properties		
		Tensile Strength	ASTM D 638	80 N to 20 kN
		Elongation		1 mm to 50 mm
		Tensile Modulus		80 N to 20 kN
		Tensile Strength	ISO 527	80 N to 20 kN
		Determination of Flexural	ASTM D 790	40 N to 20 kN
		Strength	ISO 178	40 N to 20 kN
		Tensile Strength of Thin Plastic Sheeting	ASTM D 882	20 N to 100 N
		Melt Flow Rate of Thermoplastics by Extrusion Plastometer	ASTM D 1238 ISO1133-2	No flow to 50 g/10min
		Oxygen Index	ASTM D 2863	10 % to 47 %
		Flammability of Plastic Material	UL 94	Qualitative (Pass/Fail)
		Deflection Temperature of Plastics Under	ASTM D 648	Ambient to 260 °C
		Flexural Load in Edgewise Position & Flat wise Position	ISO 75	
		Vicat Softening Temperature of Plastics	ASTM D 1525 ISO 306	Ambient to 260 °C