National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : APPLICATIONS RESEARCH & DEVELOPMENT CENTRE, HALDIA PETROCHEMICALS LIMITED, 54/A/1, BLOCK - DN, SECTOR V, SALT LAKE CITY, KOLKATA, 24 PARAGANAS NORTH, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-10267 **Page No** 1 of 4

Validity 28/01/2022 to 27/01/2024 **Last Amended on** 10/04/2023

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Ash Content	IS 13360 (Part8/Sec8)
2	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Ash Content	ISO 3451 - 1
3	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Charpy Impact Resistance	ASTM D6110
4	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Density	ASTM D1505
5	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Density	IS 13360 (Part 3/Sec 11)
6	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Density	ISO 1183 - 2
7	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	DSC Melting Temperature	ASTM D3418
8	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	DSC Melting Temperature	IS 13360 (Part 6/ Sec 10)
9	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	DSC Melting Temperature	ISO 11357 - 3
10	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Dynamic Mechanical Properties by DMA	ASTM D4065
11	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Dynamic Mechanical Properties by DMA	ISO 6721 - 1
12	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Break	ASTM D638
13	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Break	ASTM D882
14	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Break	IS 13360 (Part 5/Sec 1)
15	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Break	IS 13360 (Part 5/Sec 3)
16	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Break	ISO 527 – 2
17	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Break	ISO 527 – 3
18	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Yield	ASTM D638

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19	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Elongation at Yield	ASTM D882
20	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Yield	IS 13360 (Part 5/Sec 1)
21	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Yield	IS 13360 (Part 5/Sec 3)
22	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Yield	ISO 527 – 2
23	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Elongation at Yield	ISO 527 – 3
24	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Environmental Stress Cracking Resistance	ASTM D1693
25	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Flexural Modulus	ASTM D790
26	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Flexural Modulus	IS 13360 (Part 5/Sec 7)
27	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Flexural Modulus	ISO 178
28	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Haze	ASTM D1003
29	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Haze	ISO 14782
30	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Heat Distortion Temperature	ASTM D648
31	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Heat Distortion Temperature	IS 13360 (Part 6/Sec 17)
32	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Heat Distortion Temperature	ISO 75 - 1
33	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Hot Tack Strength	ASTM F1921
34	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Izod Impact	IS 13360 (Part 5/ Sec 4)
35	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Izod Impact	ISO 180
36	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Izod Impact Resistance	ASTM D256
37	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Loss in Weight by TGA	ASTM E1131

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38	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Loss in Weight by TGA	ISO 11358 - 1
39	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Melt Flow Index	ASTM D1238
40	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Melt Flow Index	IS 13360 (Part 4/Sec 1)
41	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Melt Flow Index	ISO 1133 - 1
42	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Oxidative Induction Time	ASTM D3895
43	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Oxidative Induction Time	IS 4984 Annexure B
44	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Oxidative Induction time	ISO 11357 - 6
45	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Seal Strength	ASTM F88
46	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Shear Viscosity by Capillary Rheometer	ASTM D3835
47	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Shear Viscosity by Capillary Rheometer	IS 13360 (Part 4/Sec 5)
48	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Shear Viscosity by Capillary Rheometer	ISO 11443
49	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Specific Heat Capacity	ASTM D3418
50	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Specific Heat Capacity	ISO 11357 - 4
51	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Specific Volume as a function of temperature and pressure (pvT diagram)	ISO 17744
52	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Structural features by Infrared Spectrophotometry (FTIR)	ASTM D5576
53	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Tensile Strength at Break	ASTM D638
54	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Tensile Strength at Break	ASTM D882
55	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Tensile Strength at Break	IS 13360 (Part 5/Sec 1)

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56	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Tensile Strength at Break	IS 13360 (Part 5/Sec 3)
57	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Tensile Strength at Break	ISO 527 – 2
58	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Tensile Strength at Break	ISO 527 – 3
59	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & Polypropylene	Tensile Strength at Yield	ASTM D 638
60	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Tensile Strength at Yield	ASTM D882
61	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Tensile Strength at Yield	IS 13360 (Part 5/Sec 1)
62	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Tensile Strength at Yield	IS 13360 (Part 5/Sec 3)
63	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Tensile Strength at Yield	ISO 527 - 2
64	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Tensile Strength at Yield	ISO 527 - 3
65	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Thermal Conductivity	ASTM D5930
66	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	VICAT Softening Point	ASTM D1525-17E1
67	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	VICAT Softening Point	IS 13360 (Part 6/Sec 1)
68	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	VICAT Softening Point	ISO 306
69	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Yellowness Index	ASTM E313
70	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Yellowness Index	IS 13360 (Part 9/Sec 9)
71	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	Polyethylene & polypropylene	Yellowness Index	ISO 17223