

Laboratory QA/QC Lab, Polyester, Reliance Industries Limited, (Hazira Manufacturing Division), Surat-Hazira Road, Village Mora, Post Bhatha, Surat, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6981

Page 1 of 3

Validity 05.03.2018 to 04.03.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
<b><u>CHEMICAL TESTING</u></b>				
I.	PLASTIC & RESINS			
1.	Polymeric Products- Polyester PET chips & POY	Acetaldehyde	ASTM F2013	0.1 mg/kg to 300 mg/kg
		IPA (Iso-Phthalic Acid)	QAF-PCL-3.419	0.1 wt % to 9 wt %
		Intrinsic Viscosity	QAF-PCL-3.414 ASTM D4603	0.2 dl/gm to 1.0 dl/gm
		Di-Ethylene Glycol (DEG)	QAF-PCL-3.403	0.5 wt % to 3 wt %
		TiO <sub>2</sub> (Titanium Dioxide)	QAF-PCL-3.426	0.1 wt % to 3 wt %

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**Page 2 of 3**

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<b><u>MECHANICAL TESTING</u></b>				
<b>I.</b>	<b>PLASTIC AND POLYMERS</b>			
<b>1.</b>	<b>Polymeric Products- Polyester Staple Fiber (PSF)</b>	Linear density of textile fibres- denier	ASTM D 1577	0.60 den to 8.0 den
		Tensile Properties of Single Textile Fibers- Tenacity	ASTM D 3822/ D3822M-14	1.0 g/den to 8.0 g/den
		Tensile Properties of Single Textile Fibers- Elongation	ASTM D 3822/ D3822M-14	5.0 % to 50 %
		Tensile Properties of Single Textile Fibers - T-10 (Tenacity at 10% elongation)	ASTM D 3822/ D3822M-14	1.0 g/den to 7.0 g/den
		Crimp Per Centimetre	QAF-PSF-3.209	1.0 Crimps/cm to 6.0 Crimps/cm
		Dry Heat Shrinkage	QAF-PSF-3.210	1.0 % to 15.0 %
<b>2.</b>	<b>Polymeric Products- Polyester Fiber Fill (PFF)</b>	Linear density of textile fibres-denier	ASTM D 1577-07	1.0 den to 25.0 den
		Tensile Properties of Single Textile Fibers - Tenacity	ASTM D 3822/D3822M	1.0 g/den to 6.0 g/den
		Tensile Properties of Single Textile Fibers - Elongation	ASTM D 3822/D3822M	5.0 % to 120 %
		Crimp Per Centimetre	QAF-PSF- 3.209	1.0 Crimp/cm to 5 Crimp/cm
<b>3.</b>	<b>Polymeric Products- Partially Oriented</b>	Yarn Number using Automated Tester- Denier	Ref-ASTM D 6612 QAF-PTL-3.203	50 den to 600 den

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**Page 3 of 3**

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	<b>Yarn (POY)</b>	Extension force of POY-Draw Tension	Ref -ASTM D 5344 QAF-PTL-3.204	10 g to 300 g
		Evenness of Textile strands by Capacitance testing method- U %	Ref-ASTM D 1425 QAF-PTL-3.206	Upto 5.0 %
		Tensile property of yarn by single strand method-Tenacity	Ref-ASTM D 2256 QAF-PTL-3.208	1.70 g/d to 3.00g/d
		Tensile property of yarn by single strand method-Elongation	Ref-ASTM D 2256 QAF-PTL-3.208	100.0 % to 160.0 %
		Finish on the Yarn	QAF-PTL-3.210 Based on Bruker Manual: 2017	0.05 % to 1.2 %
<b>4.</b>	<b>Polymeric Products- Polyester PET chips &amp; POY</b>	Colour determination of plastic pellet-(PET resin)- L* Colour b* Colour	ASTM D6290 (Ref: QAF-PCL-3.211:2017)	50 CIE to 100 CIE  -7.0 CIE to +10 CIE
		Colour determination of plastic pellet(Fibre grade) L Colour b Colour	ASTM D6290 (Ref: QAF-PCL-3.211:2017)	50 HUNTER to 100 HUNTER -7.0 HUNTER to +10 HUNTER
		Density of Plastics by density gradient technique Method-C -Density and % Crystallinity	ASTM D1505 (Re: QAF-PCL-3.415:2017)	40 % to 60 %