

Laboratory Forech India Private Limited, 1, SIPCOT Industrial Park, Village Mathur-Mangal, Post Cholavaram, Taluk Cheyyar, Distt. Thiruvannamalai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-5174

Page 1 of 3

Validity 14.06.2019 to 20.04.2020

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
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MECHANICAL TESTING

I.	RUBBER AND RUBBER PRODUCTS				
1.	Rubber Conveyer Belt with Steel Cord Reinforcement Full Belt	Mechanical Tests			
		Cord Pull Out Force (Cord to coating bond test)	ISO 7623; IS 15143; AS 1333; SANS 1366	20 kN/m to 500 kN/m	
		Cord Pull Out Force (After thermal treatment at 145° C for 150 minute)			
		Adhesion Strength of cover to core layer	ISO 8094; ISO 36; IS 15143; AS 1333; SANS 1366	1.5 kN/m to 80.0kN/m	
		Dynamic cord pullout	AS 1333; IS 15143; SANS 1366	1 Cycles to 60000 Cycles	
		Fatigue Resistance			
		Troughability	EN ISO 703; IS15143; AS 1334; SANS1366	0.08 to 0.80	
		Ageing Resistance of Adhesion Strength	IS 3400 Part-4; ISO 4195	50 °C to 200 °C	
		Fire Resistance Properties			
		Flammability Test	ISO 340; CSA M 422; IS 15143; AS 1334.10; SANS 971	1 s to 45.0 s	
Electrical Surface Resistance Test	ISO 284; CSA M422-14; IS 15143; AS 1334.9; SANS 971	0 MΩ to 300 MΩ			
Drum Friction Test	CSA M422-14; IS 15143; AS 1334.11; SANS 971	25°C to 700°C			
2.	Cover Rubber	Cover Rubber Tensile Strength	ISO 37; IS 3400 Part-1; AS 1683.11; SANS 23529; DIN 53504	4 Mpa to 30MPa	
		Cover Rubber Elongation	ISO 37; IS 3400 Part-1;	100% to 1000%	

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Page 2 of 3

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		at Break	AS 1683.11; SANS 23529; DIN 53504	
		Ageing Resistance of Cover Rubber	IS 3400 Part-4; ISO 4195	50°C to 200 °C
		Cover Rubber Hardness (Shore-A)	ASTM D 2240; ISO 7619-1	10 Shore ⁰ A to 100 Shore ⁰ A
		Cover Rubber Abrasion Resistance	ISO 4649; IS 3400 Part-3; AS 1683.21; SANS 4649	20 mm ³ to 500 mm ³
3.	Full Belt	Full Thickness Breaking Strength - Longitudinal direction	IS 1891 Part-1; ISO 283-1; DIN 22102 Part-1; AS 1334.3; SANS 10037	10 kN/m to 1800 kN/m
		Full Thickness Breaking Strength - Transverse direction	IS 1891 Part- 1; ISO283-1	10 kN/m to 1800 kN/m
		Elongation at reference load	IS 1891 Part-1; ISO283-1; DIN 22102 Part-1; AS 1334.3 SANS 10037	0.5% to 4.0%
		Elongation at break load	IS 1891 Part-1; ISO283-1; DIN 22102 Part-1; AS 1334.3 SANS 10037	0.5% to 400%
		Troughability	IS 1891 Part-1; ISO 703-1; AS 1334.4; SANS 1173	0.05 to 0.80
		Adhesion Strength		
		Top Cover to Ply	IS 1891 Part-1; ISO 252; AS 1334.7; SANS 1173	1.5 kN/m to 90kN/m
		Bottom Cover to Ply	IS 1891 Part-1; ISO 252; AS 1334.7; SANS 1173	1.5 kN/m to 90kN/m
		Ply-Ply	IS 1891 Part-1; ISO 252; AS 1334.7; SANS 1173	1.5 kN/m to 90kN/m
		Ageing Resistance of Adhesion Strength	IS 3400 Part- 4; ISO 4195	50°C to 200 °C
		Fire Resistance Properties		
		Flammability Test	ISO 340 ; IS 1891Part-5; CSA M 422-14;	1 s to 45.0 s

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Page 3 of 3

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			AS 1334.10; SANS 971	
		Electrical Surface Resistance Test	IS 1891 Part- 5 CSA M422-14; AS 1334.9; SANS 971	0 MΩ to 300 MΩ
		Drum Friction Test	IS 1891 Part- 5 CSA M422-14; AS 1334.11; SANS 971	25°C to 700°C
4.	Cover Rubber	Cover Rubber Tensile Strength	ISO 37; IS 3400 Part-1; AS 1683.11; SANS 23529; DIN 53504	4 Mpa to 30MPa
		Cover Rubber Elongation at Break	ISO 37; IS 3400 Part-1; AS 1683.11; SANS 23529; DIN 53504	100% to 1000%
		Ageing Resistance of Cover Rubber	IS 3400 Part- 4; ISO4195	50°C to 200°C
		Cover Rubber Hardness (Shore-A)	ASTM D 2240-5; ISO 7619-1	10 Shore ⁰ A to 100 Shore ⁰ A
		Cover Rubber Abrasion Resistance	ISO 4649; IS 3400 Part-3; AS 1683.21; SANS 4649	20 mm ³ to 500 mm ³
5.	Rubber Sheet	Tensile Strength	ISO 37; IS 3400 Part-1; AS 1683.11; SANS 23529; DIN 53504	4 Mpa to 30MPa
		Elongation at Break	ISO 37; IS 3400 Part-1; AS 1683.11; SANS 23529; DIN 53504	100% to 1000%
		Hardness (Shore-A)	ASTM D 2240-5; ISO 7619-1	10 Shore ⁰ A to 100 Shore ⁰ A
		Abrasion Resistance	ISO 4649; IS 3400 Part-3; AS 1683.21; SANS 4649	20 mm ³ to 500 mm ³
		Specific Gravity	IS 3400 Part- 9; ISO: 2781	0.6 to 3.0
		Tear Strength (Angular)	IS 3400 Part-17;	5 N/mm to 300 N/mm
		Tear Strength (Crescent)	ISO 34-1	