



Central Institute of Road Transport

(A unit of the Association of State Road Transport Undertakings)

Post Box No. 1897, Near Nashik Phata, Bhosari, Pune - 411 026, India

Tel.: (0091-020) 67345300 (30 channels) Fax : 020 - 67345407

E-Mail : td@cirtindia.com Web : www.cirtindia.com

TEST REPORT

- This Test Report is in respect of the item / material actually tested.
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- The Institute does not take any responsibility for preserving the sample for more than 3 months from the date of issue of Test Report.
- All disputes of any nature to this Test Report shall lie within the jurisdiction of the courts at Pune only.

Our Ref. No. : **ED/13-14/1300373271/N3095**

To

DIRECTOR(Technical)
Association of SRT Undertakings
PLOT NO.4A, PSP BLOCK, POCKET-14
SECTOR-8, DWARKA
NEW DELHI 110 075

ASRTU COPY

6 MAR 2014

1. Item Nomenclature & Part No.	BRAKE LINING (ASBESTOS FREE) REAR 7" STD LEYLAND P 3601651
2. Customer's Nomenclature of item (if different)	-----
3. Sample Regn. No. /Code No.	C69024/ 1300373271
4. No. /Quantity of Sample	4 NOS
5. Sample Supplied by and Reference No.	DIRECTOR(TECHNICAL),ASRTU,NEW DELHI ASRTU/TEST/DT/F(35)/T138/236/03/ATR/28/2868 Dtd. 07/10/2013
6. Name of Manufacturer	THERMO FAB INDUSTRIES
Marking on the sample	TFX LEYLAND AL/TP/SM/3 & 4 STD
7. Customer's Code No./S.T.O.	B8478
8. Date of receipt of sample	28/11/2013
9. Test Charges Receipt/ Technical Clearance Date	17/02/2014
10. Specifications	AS:307:76:JUN:2011

Assessment of Test Results

Approved

The sample meets the requirements of tests carried out and is acceptable.

Encl :

- 1) Annexure "A"
- 2) Bill No. N3095

Mr. N.R. Kachare, Scientist E,
Head-Engineering Division

TEST REPORT		ANNEXURE "A"		
ENGINEERING RESEARCH CENTRE		CIRT		
FORM NO: ERC:TP:215:FM03				
ITEM :- BRAKE LINING LEYLAND, (ASBESTOS FREE) REAR, 7" STD				
PART NO:- P 3601651				
SAMPLE NO:-1400373271		SPECIFICATION NO. : AS:307:76:JUN-2011		
		PAGE 1 OF 2		
Sr. No	Nature of Test	Test Results		Remarks
		Specified	Actual	

1.0 Visual examination (Cl.4.2)	Shall be free from surface defects like cracks, scoring, indentation, unevenness etc.	Conforms	Meets the Specification.
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2.0 Dimensions (mm) (Cl.4.3)

a) Width	Not specified	176.92	For Record Only.
Thickness	Not specified	---	
c) Length of Brake Lining	Not specified	182	
d) Counter bore dia.	Not specified	12.76	
e) Rivet hole dia.	Not specified	7.11	
f) No. of rivet holes	Not specified	10	
g) Angle of curvature (Degrees)	Not specified	52	
h) Radius of curvature	Not specified	184	

3.0 Heat Swell test (Cl. 4.5)
(At 200 ±3 °C for 40 min.)

a) Blistering/Swelling/Distortion/ Cracking.	Shall not show any evidence of such defects	Conforms	Meets the Specification.
b) Heat swell (change in thickness in hot condition, mm)	0.25 (Max)	0.066	Meets the Specification.
c) Growth (change in thickness in cold condition, mm)	Not specified	0.021	For Record Only

4.0 Friction Test (Cl.5.0)

4.1 Normal Friction Test (Cl.5.2)

a) Co-efficient of Friction (Max. Interface temp.150 °C)	0.32 - 0.45	0.40	Meets the Specification.
b) Permissible co-efficient of Friction variation from normal test value, (Percent)	+30 -20	+10 -8	Meets the specification

TEST REPORT		CIRT
SAMPLE NO:-1400373271	SPECIFICATION NO. : AS:307:76:JUN-2011	PAGE 2 OF 2

Sr. No.	Nature of Test	Test Results		Remarks
		Specified	Actual	

4.2 Heat Friction Test (Cl.5.3)

Permissible co-efficient of Friction variation from normal test value (Percent)	±30	-13	Meets the Specification.
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4.3 Wet Friction Test (Cl.5.4)

Decrease in co-efficient of Friction (2 hrs. soaking in water at room temp.) (Percent)	10 %(max) of normal average friction value	+18	Meets the Specification.
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5.0 Cross Breaking Strength in Kg. per sq.cm (Cl.6.0)	300 (min)	353	Meets the Specification.
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6.0 Water Swell Test (Cl.7.0) (30 minutes soaking in water at room temp.) Change in thickness (mm)	0.1 mm (max)	-0.001	Meets the Specification
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7.0 Acetone Extract, Percent (Cl.8.0)	2 % (max)	0.97	Meets the Specification
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8.0 Loss on Ignition, Percent (Cl.9.0)	50 % (max)	39	Meets the Specification
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9.0 Hardness on Rockwell 'L' scale (Cl.10.0)	75 - 115	90	Meets the Specification.
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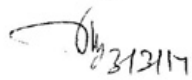
10.0 Marking (Cl.11.0)

a) Manufacturers identification mark	'TFX' LEYLAND	For record only
	Shall be marked	
b) Type No/Part No.	AL/TP/SM/3 & 4 STD	
	A/F P. No. 3601651	

REMARKS

Grade "A"

The sample meets the requirements of the tests carried out and is acceptable


V.D. Chavan, Scientist 'C'
Scientist/Automobile Lab.1