



# INTERNATIONAL TESTING CENTRE

Accreditation for ISO/IEC 17025:2005 by DAkkS, Germany

Accredited by BIS India, approved by DGS&D, DGAOA, RITES, Air Headquarters, General Motors



**DAkkS**

Deutsche  
Akkreditierungsstelle  
D-PL-11339-01-00

## TEST CERTIFICATE



**Supplier** : Vijay Shoes Pvt. Ltd.  
**Contact** : Mr Anand Agarwal  
**Material** : Safety Shoe (size- 8) Design A  
**Sample code** : Batch No. 10/15  
**Specification** : IS 15298 (Part-2) : 2011, Classification-I  
**Job Start Date** : 30.10.2015

**Job No.** : 2K1510558  
**Date of Entry** : 26.10.2015  
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**Job Completion Date** : 27.11.2015

### Laboratory Environment

Temperature : 23 ± 2°C

Relative Humidity : 50 ± 5%

Sample was conditioned for 48 hours.

**Product category** : SB (Table 2 & 3)  
**Design** : A  
**Upper** : Leather  
**Lining** : Quarter : Textile - Black  
Vamp : Non Woven - Black  
**Tongue/Collar** : Synthetic  
**Toe cap** : Metallic  
**Insole** : Present (Non-leather)  
**Insock** : Full Insock (Textile), non-removable  
**Sole** : PU (Single density)

S. No.	Test Name	Clause	Value	Requirement	Conformity				
<b>1. Design</b>									
a.	Height of upper	5.2	A	A	Conforms				
		5.2.1	< 113 mm	< 113 mm	Conforms				
b.	Seal Region	5.2.2	Closed	Closed	Conforms				
<b>2. Test on Complete Footwear - 5.3</b>									
a.	Construction	5.3.1.1	Yes	Insole can not be removed without damaging the footwear	Conforms				
b.	Upper/Outsole bond strength	5.3.1.2	5.32 N/mm	4.0 N/mm (minimum)	Conforms				
c.	Toe Protection : General	5.3.2.1	Toe-cap has been incorporated in such a way that it can not be removed without damaging the shoe. The toecaps have a vamp lining	Toe-cap shall be incorporated in such a way that it can not be removed without damaging the shoe. The toe-caps shall have a vamp lining	Conforms				
						Covering beneath the toe-cap	> 5 mm	> 5 mm	Conforms
						Covering in opposite direction	> 10 mm	> 10 mm	Conforms
						Thickness of Scuff resistance	>1.0 mm	>1.0 mm	Conforms



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**FOOTWEAR DESIGN & DEVELOPMENT INSTITUTE**  
MINISTRY OF COMMERCE & INDUSTRY, GOVERNMENT OF INDIA

A-10/A, SECTOR-24, NOIDA-201301, DISTT. GAUTAM BUDHA NAGAR (U.P.) INDIA  
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S. No.	Test Name	Clause	Value	Requirement	Conformity
d.	Internal length of toe caps	5.3.2.2	40.0 mm	39 mm (minimum)	Conforms
e.	Impact resistance (200 J)	5.3.2.3	14.0 mm	14.0 mm (minimum)	Conforms
f.	Compression resistance (15 kN)	5.3.2.4	15.0 mm	21.0 mm (minimum)	Conforms
g.	<b>Behaviour of Toecap : 5.3.2.5</b> Corrosion resistance	5.3.2.5.1	No corrosion	Max. 3 area of corrosion, none shall measure more than 2 mm.	Conforms
h.	Specific ergonomic features	5.3.4			
i.	Is the inside surface of the footwear free from rough sharp or hard areas that caused you irritation or injury ?		Yes	Yes/No	Conforms
ii.	Are there no pinch points cause by the toe-cap or the edge covering of the toe-cap?		Yes	Yes/No	Conforms
iii.	Is the footwear free of features that you consider to make wearing the footwear hazardous?		Yes	Yes/No	Conforms
iv.	Can the fastening be adequately adjusted (if necessary)?		Yes	Yes/No	Conforms
v.	Can the following activities be performed without problem?				
	Walking		Yes	Yes/No	Conforms
	Climbing stairs		Yes	Yes/No	Conforms
	Kneeling/crouching down		Yes	Yes/No	Conforms
<b>3. Test on Upper – 5.4</b>					
a.	Tear strength	5.4.3	273 N	120 N (minimum)	Conforms
b.	Tensile strength	5.4.4	36.5 N/mm <sup>2</sup>	15 N/mm <sup>2</sup> (minimum)	Conforms
c.	Water vapour permeability	5.4.6	0.89 mg/cm <sup>2</sup> h	0.8 mg/cm <sup>2</sup> h (minimum)	Conforms
d.	Water vapour coefficient	5.4.6	16.45 mg/cm <sup>2</sup>	15 mg/cm <sup>2</sup> (minimum)	Conforms
<b>4. Test on Vamp Lining – 5.5</b>					
a.	Tear strength	5.5.1	57.4 N	15 N(minimum)	Conforms
b.	Water vapour permeability	5.5.3	18.13 mg/cm <sup>2</sup> h	2.0 mg/cm <sup>2</sup> h(minimum)	Conforms
c.	Water vapour coefficient	5.5.3	145.57 mg/cm <sup>2</sup>	20 mg/cm <sup>2</sup> (minimum)	Conforms
d.	Martindale abrasion	5.5.2	No hole observed No hole observed	DRY-No hole till 25 600 cycles WET-No hole till 12 800 cycles	Conforms
<b>5. Test on Quarter lining – 5.5</b>					
a.	Tear strength	5.5.1	23.6 N	15 N (minimum)	Conforms
b.	Water vapour permeability	5.5.3	25.18 mg/cm <sup>2</sup> h	2.0 mg/cm <sup>2</sup> h (minimum)	Conforms
c.	Water vapour coefficient	5.5.3	202.27 mg/cm <sup>2</sup>	20 mg/cm <sup>2</sup> (minimum)	Conforms
d.	Martindale abrasion	5.5.2	No hole observed No hole observed	DRY-No hole till 25 600 cycles WET-No hole till 12 800 cycles	Conforms
<b>6. Test on Tongue – 5.6 (same as upper)</b>					



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S. No.	Test Name	Clause	Value	Requirement	Conformity
<b>7. Test on Insole &amp; Insock (Full Insock, non-removable) - 5.7</b>					
a.	Thickness(Insole+Insock)	5.7.1	> 2.0 mm	2.0 mm (minimum)	Conforms
b.	Water absorption & Desorption(Insole+Insock)	5.7.3	130.3 mg/cm <sup>2</sup> 99 %	70 mg/cm <sup>2</sup> (minimum) 80 %(minimum)	Conforms
c.	Martindale abrasion (Insock)	5.7.4.2	No hole observed No hole observed	DRY- No hole till 25 600 cycles WET- No hole till 12 800 cycles	Conforms
<b>8. Test on Outsole - 5.8</b>					
a.	Thickness	5.8.1	> 6.5 mm	6 mm (minimum)	Conforms
b.	Tear strength	5.8.2	5.82 kN/m	5 kN/m (min.)	Conforms
c.	Abrasion resistance	5.8.3	83 mm <sup>3</sup>	250 mm <sup>3</sup> (max.)	Conforms
d.	Flexing resistance	5.8.4	No cut growth	4 mm (max) cut growth till 30,000 cycles	Conforms
e.	Hydrolysis Test	5.8.5	No cut growth	6 mm (max) cut growth till 150,000 cycles	Conforms
f.	Resistance to fuel oil	5.8.7	3.72 %	12 % (max)	Conforms

  
**Rajesh Mishra**  
 (Senior Technologist)



  
**Shailendra Saxena**  
 Chief Technologist & Head -Physical Laboratory

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