



INTERNATIONAL TESTING CENTRE

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

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



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 | | | | |
|-------------------------------------------|-----------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|---------|---------|----------|
| 1. Design | | | | | | | | | |
| a. | Height of upper | 5.2 | A | A | Conforms | | | | |
| b. | Seat Region | 5.2.1 | < 113 mm | < 113 mm | Conforms | | | | |
| | | 5.2.2 | Closed | Closed | Conforms | | | | |
| 2. Test on Complete Footwear – 5.3 | | | | | | | | | |
| 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
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|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------|------------------------------------------------------------------|------------|
| 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. | Behaviour of Toecap : 5.3.2.5 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 |
| 3. Test on Upper – 5.4 | | | | | |
| a. | Tear strength | 5.4.3 | 273 N | 120 N (minimum) | Conforms |
| b. | Tensile strength | 5.4.4 | 36.5 N/mm ² | 15 N/mm ² (minimum) | Conforms |
| c. | Water vapour permeability | 5.4.6 | 0.89 mg/cm ² h | 0.8 mg/cm ² h (minimum) | Conforms |
| d. | Water vapour coefficient | 5.4.6 | 16.45 mg/cm ² | 15 mg/cm ² (minimum) | Conforms |
| 4. Test on Vamp Lining – 5.5 | | | | | |
| a. | Tear strength | 5.5.1 | 57.4 N | 15 N (minimum) | Conforms |
| b. | Water vapour permeability | 5.5.3 | 18.13 mg/cm ² h | 2.0 mg/cm ² h (minimum) | Conforms |
| c. | Water vapour coefficient | 5.5.3 | 145.57 mg/cm ² | 20 mg/cm ² (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 |
| 5. Test on Quarter lining – 5.5 | | | | | |
| a. | Tear strength | 5.5.1 | 23.6 N | 15 N (minimum) | Conforms |
| b. | Water vapour permeability | 5.5.3 | 25.18 mg/cm ² h | 2.0 mg/cm ² h (minimum) | Conforms |
| c. | Water vapour coefficient | 5.5.3 | 202.27 mg/cm ² | 20 mg/cm ² (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 |
| 6. Test on Tongue – 5.6 (same as upper) | | | | | |



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| 7. Test on Insole & Insock (Full Insock , non-removable) - 5.7 | | | | | |
| 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 ² 99 % | 70 mg/cm ² (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 |
| 8. Test on Outsole – 5.8 | | | | | |
| 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 ³ | 250 mm ³ (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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