



सिक्वोरफायर – सुरक्षा की नई परिभाषा



SECUREFIRE SAFETY INDUSTRIES PVT. LTD.



AN DRDO AWARDED & PATENTED
INDEGENOUS TECHNOLOGY IN
MATERIAL SCIENCE



TIFI



A NANO-TECHNOLOGY BASED
ADVANCED TECHNICAL TEXTILE FABRIC



About Us

SECUREFIRE

- **Formed on 27.12.2016; DIPP Certified** in June 2017 (DIPP/IMB 2629)
- **Patented** technology backed
- **DRDO awarded** for winning Open National Challenge
- **Approved** and Funded by DSIR
- **Approved & Supported BY NRDC**
- **Part of Top 50 Innovative companies** under IIGP-2 Selected by IIM-A
- **Replacing the imported Fire Entry Suit with More Than 2 Times higher efficient** Indigenous Technology & Patented Fire Entry Suit



About Us 2

SECUREFIRE

- A complete range of fire fighting suit
 1. TiFi Fire Entry Suit: EHF SERIES
 2. BAMOORA Aluminized Fire Fighting Suit
 3. Metara Fire Fighting Suit
- Products are rigorously tested as per EN Standards by ATIRA
- Technology upgradation and tested at various level by IIT-BHU, IIT-K
- Products live field Demonstration Done at State Level Fire Brigade Divisions of: Bihar, Uttar Pradesh, Harayana and Gujarat
- Other States who shown interest are: Goa, Rajasthan, Uttra Khand and Chhatisgarh



Our Promise: Research Based Innovative Solutions for Un-Compromised Safety of Fire Fighters



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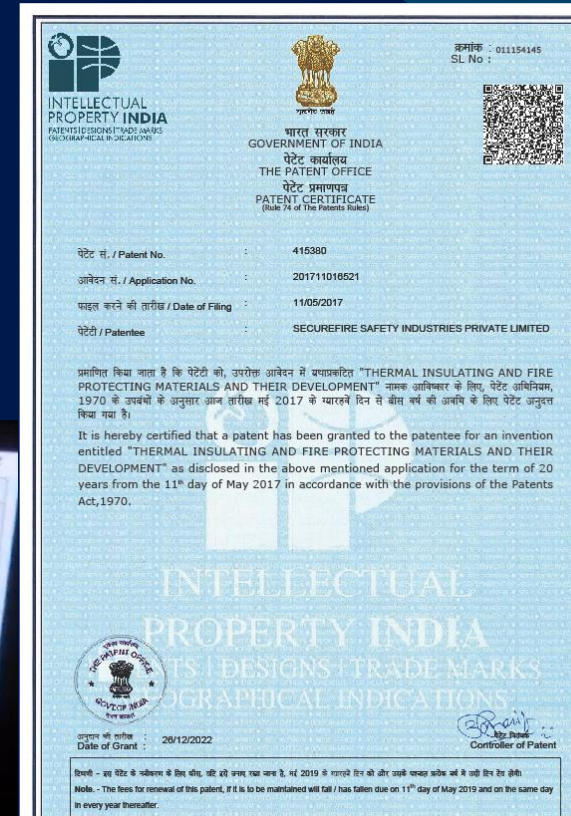
Extra Edge:

Securefire Testing & Trial

- In-House Testing & Trial Facility
 - Each lot of material got tested in-house for fire suit
 - Rigorous trials are done on face shield for eye protection
 - Each fresh lot for shoe material got tested
- Strong Technical Advisor Board
 - IIT Kanpur, IIT-BHU, IIT-Roorkee Professors are on board

Competitive Edge:

- Patented Technology:
 - Indian Patent No.: 201711016521A
 - PCT/IB2018/053294
- International Patent Filed in: USA, CANADA, CHINA, UAE & SAUDI-ARABIA






Value Proposition

TiFi Supported Products:

- i. Light weighted product
- ii. 4 times longer Protection duration from contact heat of 500°C
- iii. 2 Times longer protective against world class solution tested at 84kw/m² Flux
- iv. 100% Non-flammable Innovative material
- v. Non-shrinkage Innovative material while on fire
- vi. Biological hazard free-Tested & Certified
- vii. Non-Carcinogenic-Tested & Certified
- viii. Can support from Sub-Zero to 1000°C Temp.
- ix. Buy-Back Facility for used product and replace with new one

Competitive Land-Scape



<div><div><div><div></div><div>SECURE FIRE</div></div><div>सिक्वोरफायर - सुरक्षा की नई परिभाषा</div></div><div>COMPETITIVE EDGE:</div></div>			
Details		International Solution Newtex X-60 	TiFi Fire Entry Suit-EHF (Indigenous) 
Testing Standard		84kw/m2 Heat Flux	84kw/m2 Heat Flux
Time duration for second burn stage		150 seconds	300 seconds +
Temperature Inside the suit after test		57 deg cent.	52 deg cent.
Life Saving Heat Sensor Indicator		X	✓
Flame Proof Eyes Protection Solution		X	✓
Use Comfortability of the suit		X	✓
Sub Zero Temp Performance		X	✓
Special Shoe, additional to shoe cover		Only Shoe Cover available	✓
Carcinogenic Test		X	✓
Biological Test		X	✓
Limiting Oxygen Index of the suit		X	31.11
Limiting Oxygen Index of the TiFi			55.12
Field Trials		X	Successfully Done with State Fire Brigade of: Bihar/Uttra Pradesh/ Gujarat/Harayana Oil & Gas Industries: OIL INDIAL LTD (along with IOCL, BCPL, DNP Ltd, AGCL, BVFCL)
Buy Back Facility		X	✓

Pics of Live Fire Demonstration

State Fire Brigades of Uttar Pradesh, Bihar, Gujarat & Haryana
& Oil India Limited-assam



LIVE TRIALS OF BAMOORA & METARA FIRE FIGHTING SUITS



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User Experience-TiFi Fire Entry Suit



FR DANGUREE FOR INDIAN ARMY



ARMED DANGUREE
FIRE-PROTECTIVE



BAMOORA FIRE FIGHTER ALUMINIUM SUIT

LIVE FIELD RIAL:
BAMOORA™ FIRE-
FIGHTER SUIT



UTTAR PRADESH FIRE BRIGADE

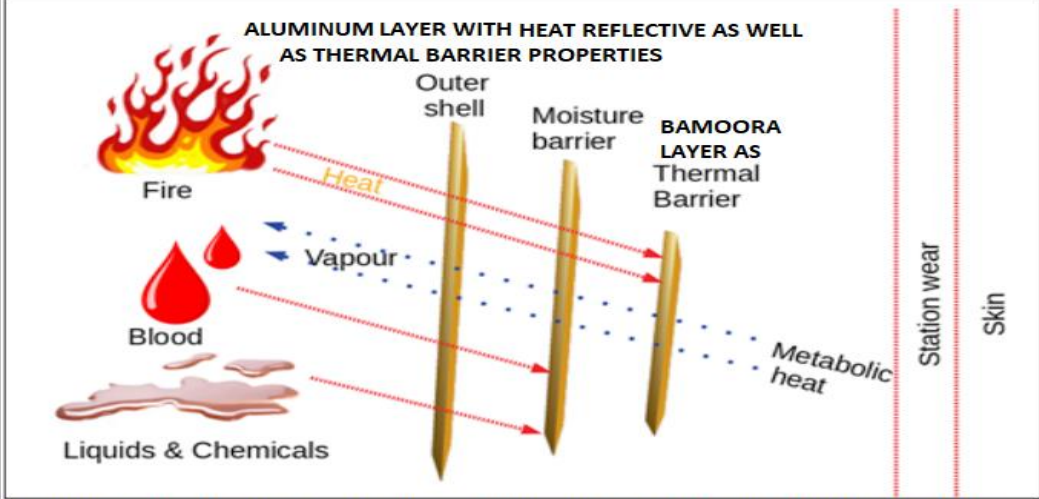


HARYANA FIRE BRIGADE-
FARIDABAD



SOLE AFTER 6 LIVE TRIAL ON FIRE

HARYANA FIRE BRIGADE



STRUCTURAL OVERVIEW OF VARIOUS LAYERS USED IN BAMOORA FIRE FIGHTER SUIT

Sr. No.	Test Description of the Suit Assembly	Standards
1	Radiant Heat @ 40KW/MT 2	EN ISO 6942
2	Convective-Heat@80KW/MT2	EN ISO 9151
3	Limited Flame Spread: A	EN ISO 15025
4	Limited Flame Spread: B	EN ISO 15025
5	Limited Flame Spread: Seam	EN ISO 15025
6	Molten Iron Splash	EN ISO 9185
7	Contact Heat @500°C	EN ISO 12127
8	Heat Resistance@260°C	EN ISO 17493
10	Tear Resistance (10N)-Outer Layer	EN ISO 13937
11	Tensile Strength(300N)-Outer Layer	EN ISO 13934
12	Dimensional Change	ISO 5077
13	Bursting	ISO 13938-1
14	Seam Strength	ISO 13935-2



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TECHNOLOGY AWARDED BY DEFENCE MINISTER OF INDIA
For Winning National Open Innovation Challenge Organized By DRDO
&
Approved By Cfees For Further Deployment



Contact Person: Premendra Singh



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www.securefire.co.in

Thank You.

Lets Empower Our Brave Fire-Fighters With World's Best TiFi Fire Entry Suit-EHF SERIES