

Arc Suit

Introduction

Arc Suit is a specially designed protection garment used worldwide to effectively protect human life from electrical flash. They are made from special flame resistant fabric (FR) meeting IEC 61482-1 & IEC 61482-2 and tested as per ASTM 1959. They are classified as per HRC 1, HRC 2, HRC 3, HRC 4 based on the ATPV values as per NFPA 70 E values.

Advantage

- Inherently flame resistant FR fabric – properties retained over life span.
- Lightweight fabric – Ranging from 6.5 to 9 oz/yard² for user comfort.
- Unique design – Various combinations for fatigue free operation.
- For higher ATPV air ventilated design garments.
- Stitching thread – garments made with FR rated thread.
- Hydrophilic as well as hydrophobic composition available.
- Various ATPV values garment starting from 8.4 & upto 100 cal/cm²
- Heat Attenuation factor (HAF) – upto 80% to ensure minimum exposure to flash.

Arc rated accessories are available to compliment all risk category depending upon applications & incident energy handling requirement.

Hazards Risk Category - HRC	Clothing Description	Required Minimum Arc Rating of PPE cal/cm ²
HRC -1	Coverall (1 Layer)	4
HRC -2	Coverall (1 Layer) + Arc Face Shield	8
HRC -3	Jacket+Pant (1 / 2 Layer) + Arc Hood	25
HRC -4	Jacket + Pant Bib Type (3 or more Layers) + Arc Hood	40

Applications

Electrical switch gear control board, motor control board operations and steel industries, railways, electrical generating stations, electrical maintenance operations

Various Terms Used

HRC – Hazard Risk Category

ATPV – Assured Thermal Protection Value

NFPA – National Fire Protection Association



Garment designs

As the ATPV value increases number of layers of fabric also increases, so does the weight & discomfort factor for the prolonged use. We have various garment designs available to suit various climatic & operating preference.

Coverall – This is single piece garment which covers body from neck to toe. This is one of the easiest to wear and comes with side pockets to keep your tools handy.

Jacket + Pant Type – this type of garmenting option is recommended for HRC 3 & 4, comes in two piece garment & can be worn easily. Hood is worn over head which has inbuilt arc rated face shield & Class E helmet.

Bib Type + Jacket + Hood / Switch Coat + Leggings + Hood – This is recommended for HRC 4 category due to high thickness of fabric layers. Bib type pant is free size & has in-built suspenders which reduces fatigue of weight. The pile waist strap can be adjusted to suit various positions. Switch Coat is a knee length single garment supported by leggings.



Arc Suit Kit

We can give you kits which has following items which are certified to various International or IS standards.

- Arc Rated Face Shield with/ without chin cup
- Only Arc Hood for Category 4 - optional
- Electrical Helmet
- Balaclava
- Dielectric Shoes
- Insulating Rubber Mats
- Insulating Rubber gloves
- FR rated shoes cover
- Anti Fog goggles
- Leather over gloves, Cotton Liners
- Kit Bag