



G. D. International

“User Comfort & Safety is our motto”

Product Catalog





About US



G. D. International is one of the leading manufacturers of Personal Protective Equipment (PPE) garments in India specializing in technical garments like **General Workwear, High Visibility garments, Flame protection, Arc flash protection, Molten Metal splash protection, acid - chemical protection** & other hazardous areas where PPE is required. We are **ISO 9001, ISO 14001, OHSAS 18001 & SEDEX SA** complied organisation and star export house of Govt. of India.

The five E's very well establishes our superiority over our competitors:

- **EXPERIENCE:** Being in this industry for more than 35 years, gives us an upper hand to most of our new / potential entrants into the PPE related garment market.
- **EXPERTISE:** With such an experience, comes along the expertise of the product which helps us to meet the stringent safety norms keeping your budgets in mind.
- **ENERGY:** With the help of new generation of operational team and workforce, we keep a dynamic attitude to external stimuli.
- **ETHICS:** We, at G. D. International, believe in a simple & yet powerful statement - "Working without ethics is never a business"
- **EXECUTION:** With our complete documented QC and production flow charts, we deliver quality at our client's doorsteps.



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People who work in hazardous environments that may involve the following hazards: Electric Arc (electricians, electric utility linemen, etc.), Flash Fire (refinery, chemical and pharmaceutical workers, etc.) Combustible Dust Explosion (workers in the paper and pulp industry, food processing, paint, and many more industries).

FLAME PROTECTION



Overall

- **Industry** – Welding, Oil & Gas, Petrochemicals etc.
- **Composition** –
 - ✦ GDI36-100% Cotton with FR Treatment
- **Weight** –
 - ✦ 220 GSM to 350 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - More info in size guide.
- **Washcare** –



➤ More info in washcare guide.

Safety Performance –

- **General :-**
 - EN-ISO 13688
 - EN-ISO 20471
 - ISO 15797

- **Fire :-**
 - EN-14116
 - EN-11611
 - EN-11612
 - NFPA 2112

- **Arc :-**
 - EN-61482
 - EN-1149
 - NFPA 2112

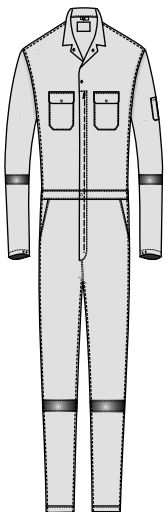
➤ More info in safety guide



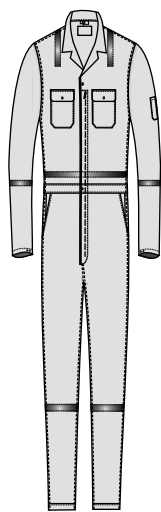
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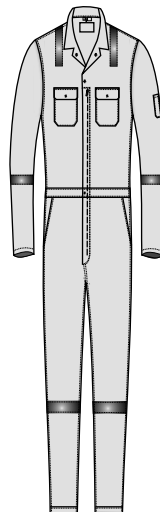
Standard Models



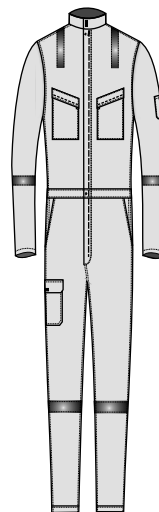
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PLUS



CLASSIC



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➤ For more customization, please refer guide.



Shirt

- **Industry** – Welding, Oil & Gas, Petrochemicals etc.
- **Composition** –
 - ✦ GDI36-100% Cotton with FR Treatment
- **Weight** –
 - ✦ 220 GSM to 350 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - More info in size guide.
- **Washcare** –



➤ More info in washcare guide.

Safety Performance –

- **General :-**
 - EN-ISO 13688
 - EN-ISO 20471
 - ISO 15797
- **Fire :-**
 - EN-14116
 - EN-11611
 - EN-11612
 - NFPA 2112
- **Arc :-**
 - EN-61482
 - EN-1149
 - NFPA 2112

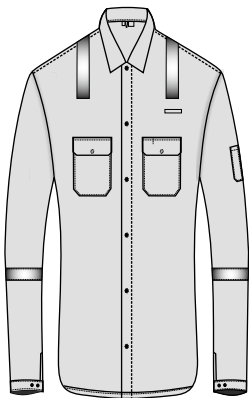
➤ More info in safety guide



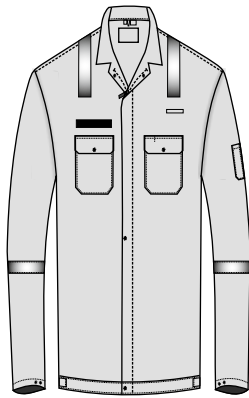
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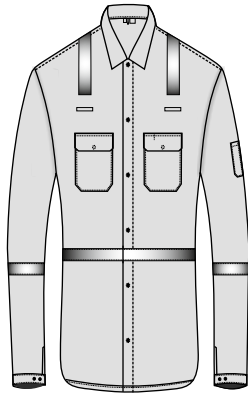
Standard Models



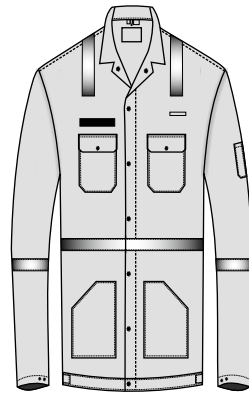
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➤ For more customization, please refer guide.



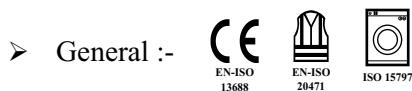
Trouser

- **Industry** – Welding, Oil & Gas, Petrochemicals etc.
- **Composition** –
 - ✦ GDI36-100% Cotton with FR Treatment
- **Weight** –
 - ✦ 220 GSM to 350 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - More info in size guide.
- **Washcare** –



➤ More info in washcare guide.

- **Safety Performance** –



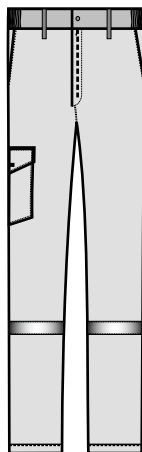
➤ More info in safety guide



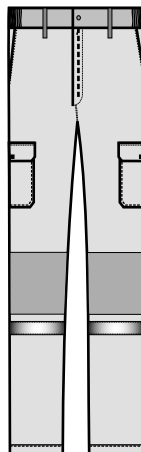
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Standard Models



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➤ For more customization, please refer guide.



Long Coat

- **Industry** – Welding, Oil & Gas, Petrochemicals etc.
- **Composition** –
 - ✦ GDI36-100% Cotton with FR Treatment
- **Weight** –
 - ✦ 220 GSM to 350 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - More info in size guide.
- **Washcare** –



➤ More info in washcare guide.

Safety Performance –

- **General :-**
 - EN-ISO 13688
 - EN-ISO 20471
 - ISO 15797

- **Fire :-**
 - EN-14116
 - EN-11611
 - EN-11612
 - NFPA 2112

- **Arc :-**
 - EN-61482
 - EN-1149
 - NFPA 2112

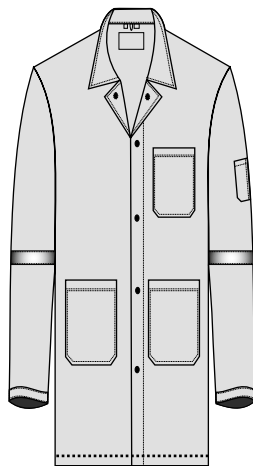
➤ More info in safety guide



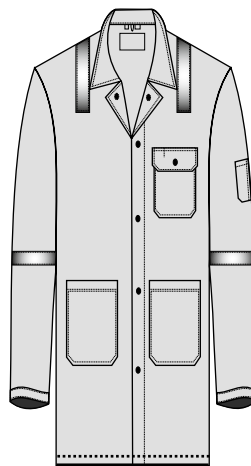
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Standard Models



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➤ For more customization, please refer guide.



Winter Jacket

- **Industry** – Welding, Oil & Gas, Petrochemicals etc.
- **Shell Composition** –
 - ✦ GDI36-100% Cotton with FR Treatment
- **Quilting** –
 - ✦ Padding: 100% Non-woven Polyester
 - ✦ Lining : 100% Polyester fabric
- **Weight** –
 - ✦ 430 GSM to 650 GSM (All layers)
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - More info in size guide.



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• **Washcare** –



➤ More info in washcare guide.

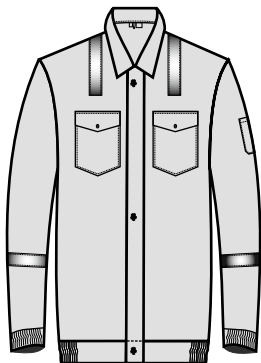
• **Safety Performance** –

- **General :-**
 - CE (EN-ISO 13688)
 - EN-ISO 20471
 - ISO 15797
- **Fire :-**
 - EN-14116
 - EN-11611
 - EN-11612
 - NFPA 2112
- **Arc :-**
 - EN-61482
 - EN-1149
 - NFPA 70E

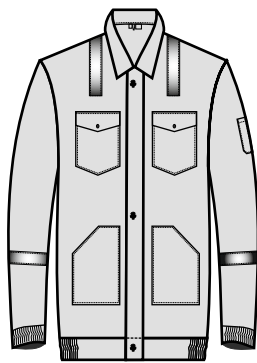
➤ More info in safety guide

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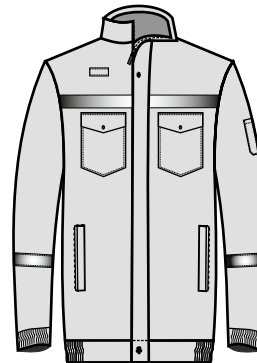
Standard Models



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➤ For more customization, please refer guide.



ARC PROTECTION

ARC-GUARD™



ARC-GUARD™

Overall

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical etc.
- **Composition** –
 - ✦ GDI32 - Modacrylic:Cotton:P-Aramid:Antistatic IFR, 180 GSM
 - ✦ GDI35 - Modacrylic:Cotton:Antistatic IFR, 200 GSM
 - ✦ GDI37 - Cotton:Antistatic with FR Treatment, 240 to 350 GSM
 - ✦ GDI38 - Cotton:Nylon:Antistatic with FR Treatment, 250 GSM
 - ✦ GDI42 - Modacrylic:Cotton:P-Aramid:Nylon:Antistatic (IFR), 220 GSM
 - ✦ GDI49 - Modacrylic:FR Viscose:M-Aramid:Antistatic (IFR), 240 GSM





- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –

- **General** :-    

- **Fire** :-    

- **Arc** :-   

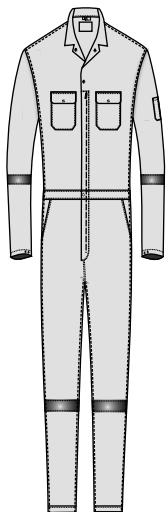
- [More info in safety guide.](#)



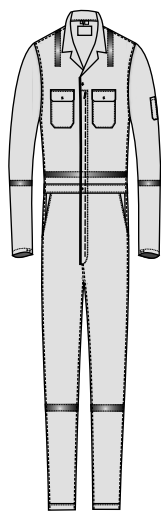
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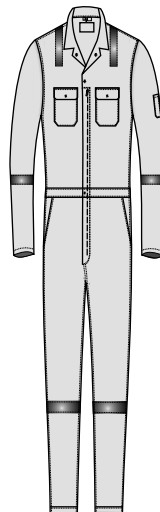
Standard Models



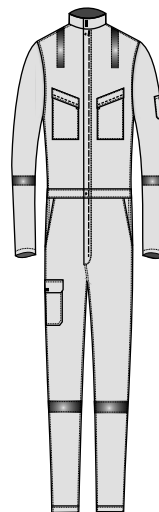
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- [For more customization, please refer guide.](#)



Shirt

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical etc.
- **Composition** –
 - ✦ GDI32 - Modacrylic:Cotton:P-Aramid:Antistatic IFR, 180 GSM
 - ✦ GDI35 - Modacrylic:Cotton:Antistatic IFR, 200 GSM
 - ✦ GDI37 - Cotton:Antistatic with FR Treatment, 240 to 350 GSM
 - ✦ GDI38 - Cotton:Nylon:Antistatic with FR Treatment, 250 GSM
 - ✦ GDI42 - Modacrylic:Cotton:P-Aramid:Nylon:Antistatic (IFR), 220 GSM
 - ✦ GDI49 - Modacrylic:FR Viscose:M-Aramid:Antistatic (IFR), 240 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide.](#)



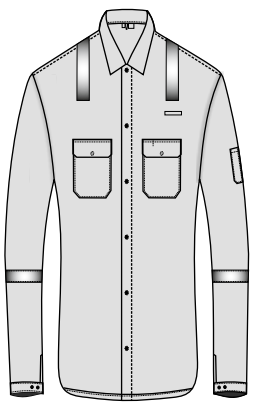
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- **Washcare** –
 -
 - [More info in washcare guide.](#)

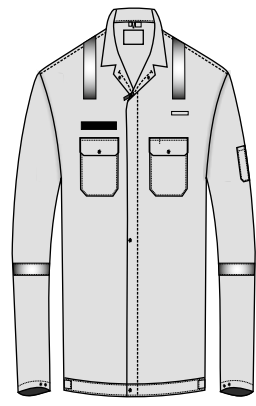
- **Safety Performance** –
 - **General** :-
 - **Fire** :-
 - **Arc** :-
 - [More info in safety guide.](#)

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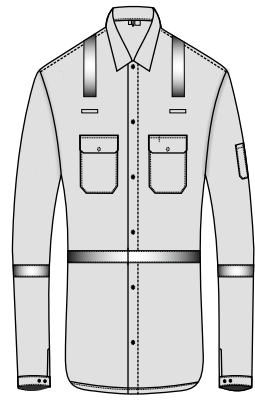
Standard Models



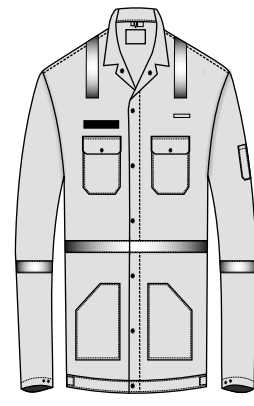
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Premium



Premium-J

➤ [For more customization, please refer guide.](#)



ARC-GUARD™

Trouser

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical etc.
- **Composition** –
 - ✦ GDI32 - Modacrylic:Cotton:P-Aramid:Antistatic IFR, 180 GSM
 - ✦ GDI35 - Modacrylic:Cotton:Antistatic IFR, 200 GSM
 - ✦ GDI37 - Cotton:Antistatic with FR Treatment, 240 to 350 GSM
 - ✦ GDI38 - Cotton:Nylon:Antistatic with FR Treatment, 250 GSM
 - ✦ GDI42 - Modacrylic:Cotton:P-Aramid:Nylon:Antistatic (IFR), 220 GSM
 - ✦ GDI49 - Modacrylic:FR Viscose:M-Aramid:Antistatic (IFR), 240 GSM

- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –

- **General** :-

- **Fire** :-

- **Arc** :-

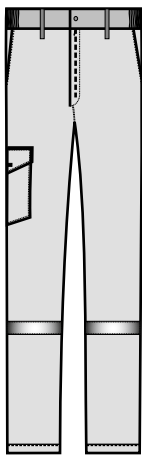
- [More info in safety guide.](#)



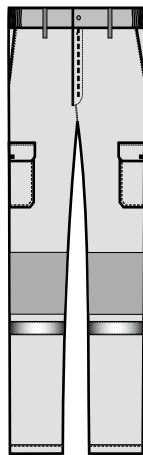
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Standard Models



REGULAR



CLASSIC

- [For more customization, please refer guide.](#)



Long Coat

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical etc.
- **Composition** –
 - ✦ GDI32 - Modacrylic:Cotton:P-Aramid:Antistatic IFR, 180 GSM
 - ✦ GDI35 - Modacrylic:Cotton:Antistatic IFR, 200 GSM
 - ✦ GDI37 - Cotton:Antistatic with FR Treatment, 240 to 350 GSM
 - ✦ GDI38 - Cotton:Nylon:Antistatic with FR Treatment, 250 GSM
 - ✦ GDI42 - Modacrylic:Cotton:P-Aramid:Nylon:Antistatic (IFR), 220 GSM
 - ✦ GDI49 - Modacrylic:FR Viscose:M-Aramid:Antistatic (IFR), 240 GSM

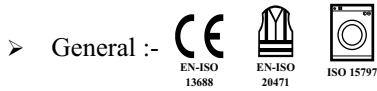
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –



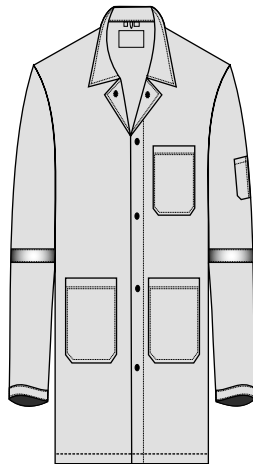
- [More info in safety guide.](#)



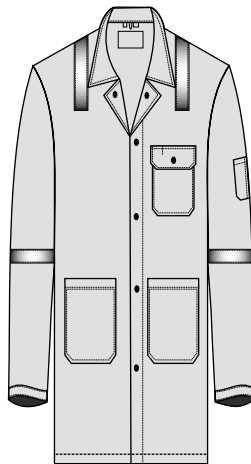
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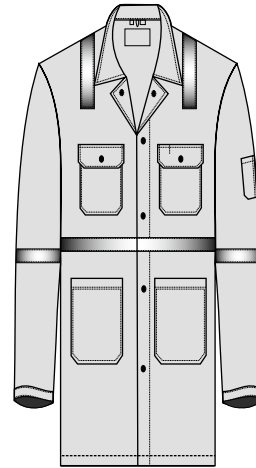
Standard Models



REGULAR



CLASSIC



PREMIUM

- [For more customization, please refer guide.](#)



ARC-GUARD™

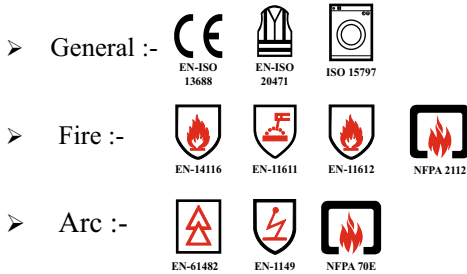
Winter Jacket

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical etc.
- **Shell Composition** –
 - ✦ GDI32 - Modacrylic:Cotton:P-Aramid:Antistatic, IFR, 180 GSM
 - ✦ GDI35 - Modacrylic:Cotton:Antistatic, IFR, 200 GSM
 - ✦ GDI37 - Cotton:Antistatic with FR Treatment, 240 to 350 GSM
 - ✦ GDI38 - Cotton:Nylon:Antistatic with FR Treatment, 250 GSM
 - ✦ GDI42 - Modacrylic:Cotton:P-Aramid:Nylon:Antistatic (IFR), 220 GSM
 - ✦ GDI49 - Modacrylic:FR Viscose:M-Aramid:Antistatic (IFR), 240 GSM
- **Quilting** -
 - ✦ Middle Layer - Normal wadding or FR wadding as per needs.
 - ✦ Inner Layer - Normal lining or FR lining as per needs.
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide.](#)
- **Washcare** –



➤ [More info in washcare guide.](#)

- **Safety Performance** –



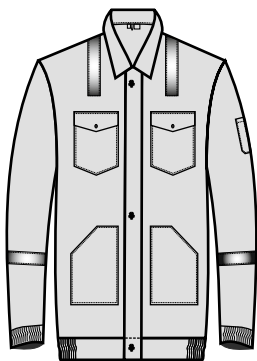
➤ [More info in safety guide.](#)



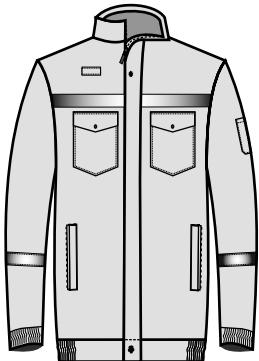
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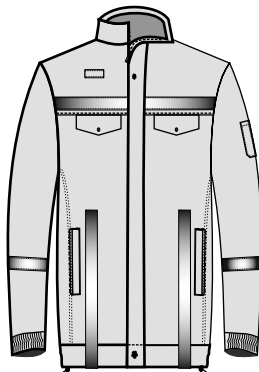
Standard Models



REGULAR



REGULAR



PREMIUM

➤ [For more customization, please refer guide.](#)

Workers working in Oil and Gas Industries are generally susceptible to various Hazards. So, its very important for them to use proper Safety clothings during work.

OIL AND GAS



Overall

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical, Defence etc.
- **Composition** –
 - + GDI33 - 93% M-Aramid:5% P-Aramid:2% Antistatic, 150 GSM
 - + GDI34 - Meta-Aramid : FR Viscose, 150 GSM
 - + GDI39 - Meta-Aramid : FR Viscose : Antistatic, 180 GSM

- **Size** –
 - + XS to 5XL (ASIA)
 - + 34 to 60 (US)
 - + 34R to 60R (UK)
 - + 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –

- **General** :- EN-ISO 13688 EN-ISO 20471 ISO 15797
- **Fire** :- EN-14116 EN-11611 EN-11612 NFPA 2112
- **Arc** :- EN-61482 EN-1149 NFPA 70E

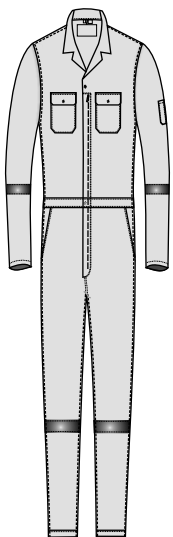
- [More info in safety guide.](#)



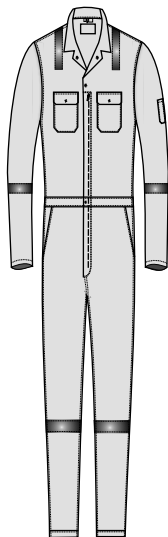
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Image for illustrative purpose only

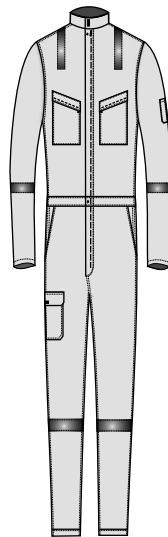
Standard Models



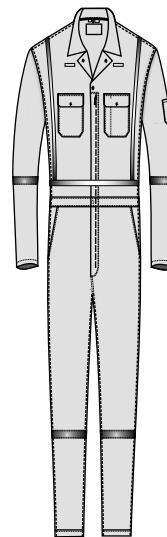
REGULAR



CLASSIC



CLASSIC-H



PREMIUM

- [For more customization, please refer guide.](#)



Shirt

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical, Defence etc.
- **Composition** –
 - + GDI33 - 93% M-Aramid:5% P-Aramid:2% Antistatic, 150 GSM
 - + GDI34 - Meta-Aramid : FR Viscose, 150 GSM
 - + GDI39 - Meta-Aramid : FR Viscose : Antistatic, 180 GSM

- **Size** –
 - + XS to 5XL (ASIA)
 - + 34 to 60 (US)
 - + 34R to 60R (UK)
 - + 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –

- **General :-**
 - EN-ISO 13688
 - EN-ISO 20471
 - ISO 15797
- **Fire :-**
 - EN-14116
 - EN-11611
 - EN-11612
 - NFPA 2112
- **Arc :-**
 - EN-61482
 - EN-1149
 - NFPA 70E

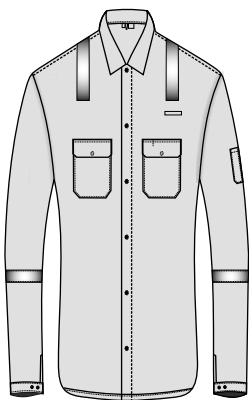
- [More info in safety guide.](#)



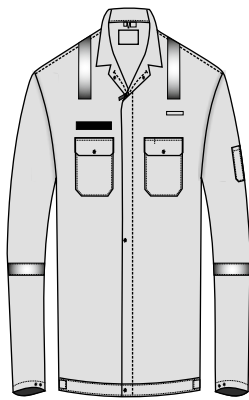
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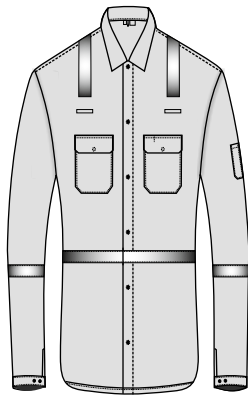
Standard Models



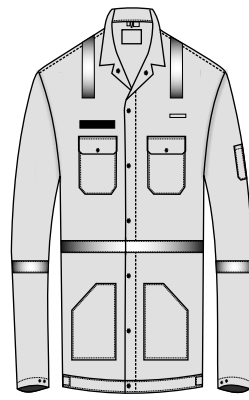
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REGULAR-J



Premium



Premium-J

- [For more customization, please refer guide.](#)



Trouser

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical, Defence etc.
- **Composition** –
 - + GDI33 - 93% M-Aramid:5% P-Aramid:2% Antistatic, 150 GSM
 - + GDI34 - Meta-Aramid : FR Viscose, 150 GSM
 - + GDI39 - Meta-Aramid : FR Viscose : Antistatic, 180 GSM

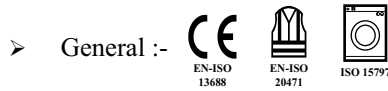
- **Size** –
 - + XS to 5XL (ASIA)
 - + 34 to 60 (US)
 - + 34R to 60R (UK)
 - + 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –



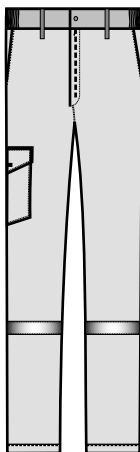
- [More info in safety guide.](#)



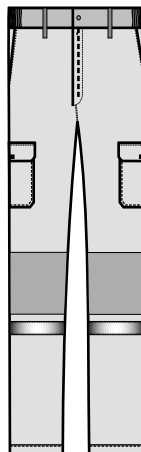
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Image for illustrative purpose only

Standard Models



REGULAR



CLASSIC

- [For more customization, please refer guide.](#)



Long Coat

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical, Defence etc.
- **Composition** –
 - + GDI33 - 93% M-Aramid:5% P-Aramid:2% Antistatic, 150 GSM
 - + GDI34 - Meta-Aramid : FR Viscose, 150 GSM
 - + GDI39 - Meta-Aramid : FR Viscose : Antistatic, 180 GSM

- **Size** –
 - + XS to 5XL (ASIA)
 - + 34 to 60 (US)
 - + 34R to 60R (UK)
 - + 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –

- **General** :- EN-ISO 13688 EN-ISO 20471 ISO 15797
- **Fire** :- EN-14116 EN-11611 EN-11612 NFPA 2112
- **Arc** :- EN-61482 EN-1149 NFPA 70E

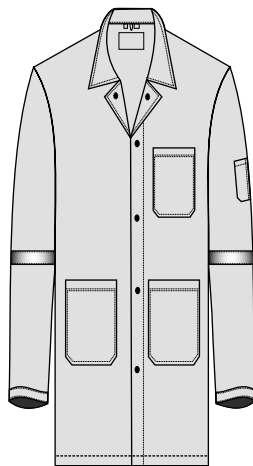
- [More info in safety guide.](#)



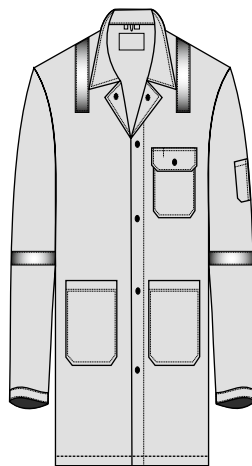
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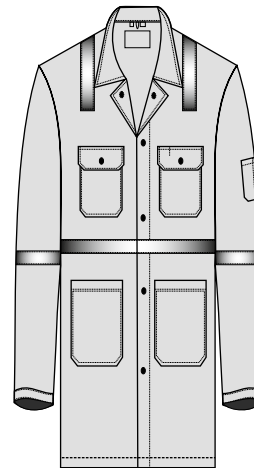
Standard Models



REGULAR



CLASSIC



PREMIUM

- [For more customization, please refer guide.](#)



Winter Jacket

- **Industry** – Welding, Oil & Gas, Petrochemicals, Electrical, Defence etc.
- **Composition** –
 - + GDI33 - 93% M-Aramid:5% P-Aramid:2% Antistatic, 150 GSM
 - + GDI34 - Meta-Aramid : FR Viscose, 150 GSM
 - + GDI39 - Meta-Aramid : FR Viscose : Antistatic, 180 GSM

- **Size** –
 - + XS to 5XL (ASIA)
 - + 34 to 60 (US)
 - + 34R to 60R (UK)
 - + 44 to 70 (EU)
 - [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –

- **General :-**
 - EN-ISO 13688
 - EN-ISO 20471
 - ISO 15797
- **Fire :-**
 - EN-14116
 - EN-11611
 - EN-11612
 - NFPA 2112
- **Arc :-**
 - EN-61482
 - EN-1149
 - NFPA 70E

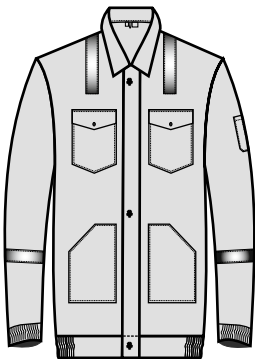
- [More info in safety guide.](#)



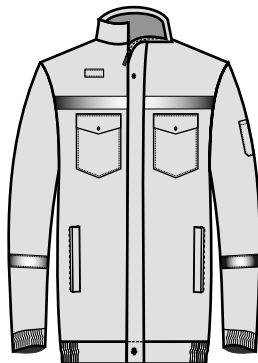
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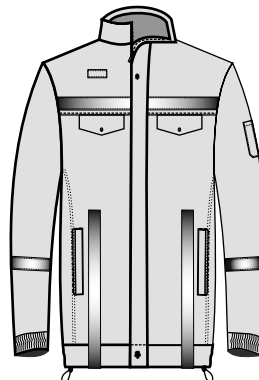
Standard Models



REGULAR



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PREMIUM

- [For more customization, please refer guide.](#)



CONSTRUCTION



Overall

- **Industry** – Construction, Physical Works, etc
- **Composition** –
 - ✦ 100% Cotton
 - ✦ Polyester Blends
 - ✦ Nylon Blends
 - ✦ Viscose Blends
- **Weight** –
 - ✦ 200 GSM to 400 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide](#)
- **Washcare** –
- **Safety Performance** –



➤ [More info in washcare guide.](#)



EN-ISO
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EN-ISO
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ISO
15797

➤ [More info in safety guide](#)

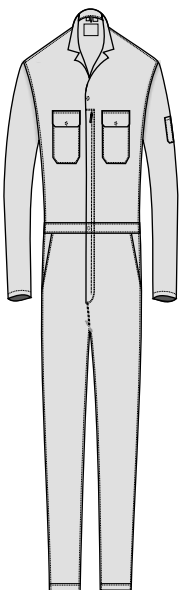


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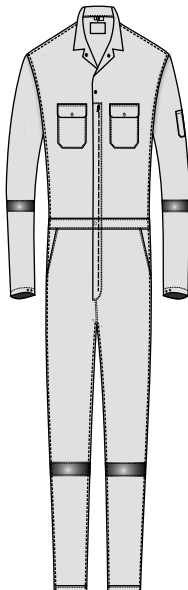
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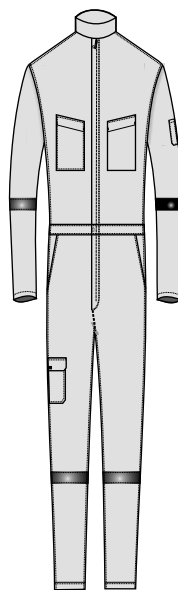
Standard Models



BASIC



REGULAR



REGULAR-H

➤ [For more customization, please refer guide.](#)



Shirt

- **Industry** – Construction, Physical Works, etc
- **Composition** –
 - + 100% Cotton
 - + Polyester Blends
 - + Nylon Blends
 - + Viscose Blends
- **Weight** –
 - + 200 GSM to 400 GSM
- **Size** –
 - + XS to 5XL (ASIA)
 - + 34 to 60 (US)
 - + 34R to 60R (UK)
 - + 44 to 70 (EU)
 - [More info in size guide](#)
- **Washcare** –
- **Safety Performance** –



➤ [More info in washcare guide.](#)



EN-ISO
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➤ [More info in safety guide](#)

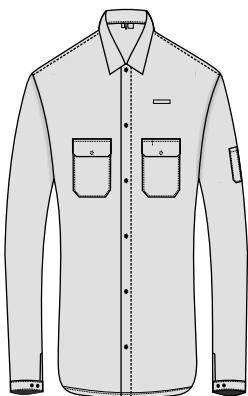


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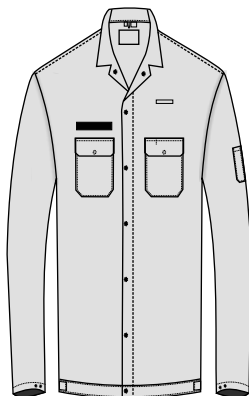
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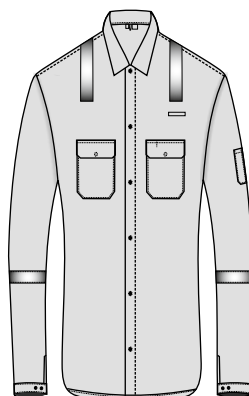
Standard Models



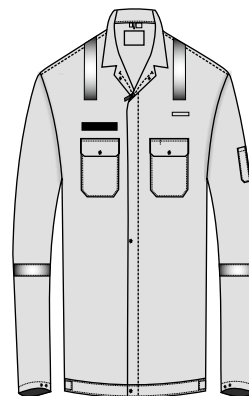
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REGULAR-J

➤ [For more customization, please refer guide.](#)



Trouser

- **Industry** – Construction, Physical Works, etc
- **Composition** –
 - ✦ 100% Cotton
 - ✦ Polyester Blends
 - ✦ Nylon Blends
 - ✦ Viscose Blends
- **Weight** –
 - ✦ 200 GSM to 400 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide](#)
- **Washcare** –
- **Safety Performance** –



➤ [More info in washcare guide.](#)



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➤ [More info in safety guide](#)

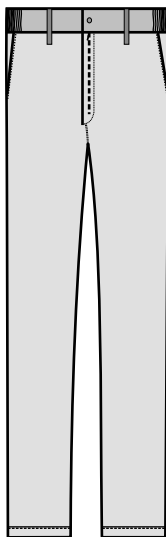


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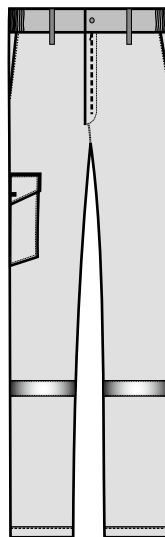
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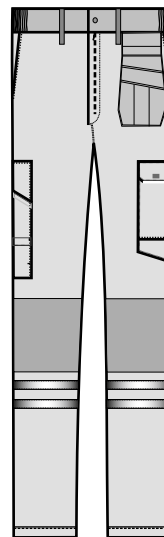
Standard Models



BASIC



REGULAR



PREMIUM

➤ [For more customization, please refer guide.](#)



Long Coat

- **Industry** – Construction, Physical Works, etc
- **Composition** –
 - + 100% Cotton
 - + Polyester Blends
 - + Nylon Blends
 - + Viscose Blends
- **Weight** –
 - + 200 GSM to 400 GSM
- **Size** –
 - + XS to 5XL (ASIA)
 - + 34 to 60 (US)
 - + 34R to 60R (UK)
 - + 44 to 70 (EU)
 - [More info in size guide](#)
- **Washcare** –
 -
 - [More info in washcare guide.](#)
- **Safety Performance** –



➤ [More info in washcare guide.](#)



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➤ [More info in safety guide](#)

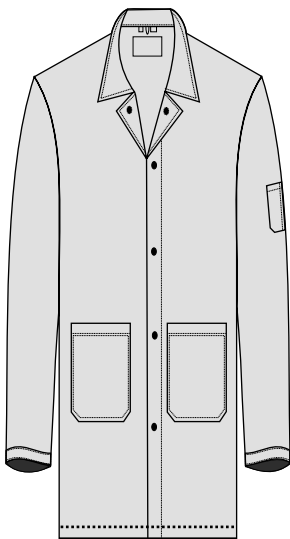


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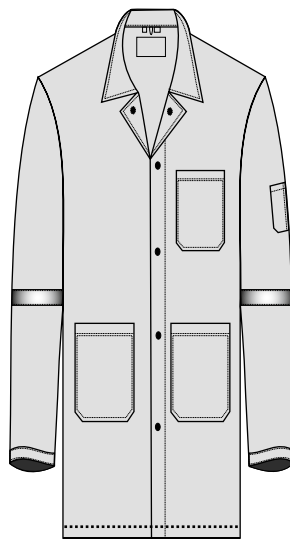
HVY
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Image for illustrative purpose only

Standard Models



BASIC



REGULAR

➤ [For more customization, please refer guide.](#)



Winter Jacket

- **Industry** – Construction, Physical Works, etc
- **Shell Composition** –
 - ✦ 100% Cotton
 - ✦ Polyester Blends
 - ✦ Nylon Blends
 - ✦ Viscose Blends

- **Quilting** –
 - ✦ Padding: 100% Non-woven Polyester
 - ✦ Lining : 100% Polyester fabric

- **Weight** –
 - ✦ 430 GSM to 650 GSM (All layers)

- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)

➤ [More info in size guide.](#)

- **Washcare** –



- [More info in washcare guide.](#)

- **Safety Performance** –



- [More info in safety guide](#)

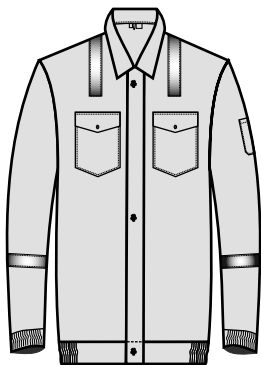


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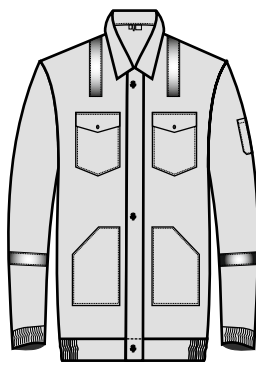
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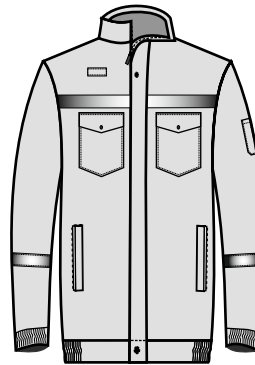
Standard Models



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MANDARIN COLLAR

- [For more customization, please refer guide.](#)



- **Industry** – Physical Works, Fashion etc
- **Composition** –
 - ✦ 100% Polyester fabric
 - ✦ 100% Nylon fabric
- **Coating** –
 - ✦ PU (Polyurethane) Coating
 - ✦ Breathable PU (Polyurethane) Coating
 - ✦ Acrylic Coating
- **Treatment** –
 - ✦ Water Repellent
 - ✦ Optional FR Treatment
- **Weight** –
 - ✦ 75 GSM to 300 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide](#)

- **Washcare** 

➤ [More info in washcare guide.](#)

- **Safety Performance** –



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➤ [More info in safety guide](#)



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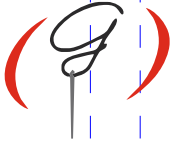
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➤ [For more customization, please refer guide.](#)



HOSPITAL UNIFORMS



Hospital Uniforms

- **Industry** – Hospital, Nursing, etc
- **Composition** –
 - ✦ 100% Cotton fabric
 - ✦ Cotton : Viscose blends
 - ✦ Cotton: Polyester blends
- **Treatment** –
 - ✦ Anti Microbial
- **Weight** –
 - ✦ 180 GSM to 300 GSM
- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide](#)
- **Washcare** –
 -
 - [More info in washcare guide.](#)
- **Safety Performance** –



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Image for illustrative purpose only



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- [More info in safety guide](#)

- [For more customization, please refer guide.](#)



MOLTEN METAL



Molten Metal Splash Protection

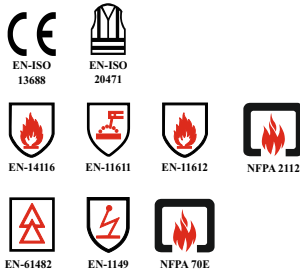
- **Industry** – Foundries, Iron Industry, Aluminium Industry, Other metal industries etc
- **Composition** –
 - ✦ GDI36-35 – 100% Cotton with FR Treatment, 350 GSM
 - ✦ GDI36-45 – 100% Cotton with FR Treatment, 450 GSM
 - ✦ GDI43J – Wool: FR Viscose : Nylon (Inherent FR)
 - ✦ GDI43L – Modacrylic : FR Viscose : Para-Aramid : Cotton : Antistatic (Inherent FR)

- **Size** –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide](#)

- **Washcare** –

 - [More info in washcare guide.](#)

- **Safety Performance** –



- [More info in safety guide](#)

- [For more customization, please refer guide.](#)



For GDI36

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For GDI43

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Image for illustrative purpose only





FIRE FIGHTING



Woven Magic™

Fire Stationwear

- Industry – Fire fighting
- Composition –
 - ✦ GDI33 – 93% Meta-Aramid : 5% Para-Aramid : 2% Antistatic (Inherent FR)
 - Weave : Ripstop
 - Weight : 220 GSM
 - ✦ GDI33 – 93% Meta-Aramid : 5% Para-Aramid : 2% Antistatic (Inherent FR)
 - Weave : Plain / Twill
 - Weight : 200 GSM

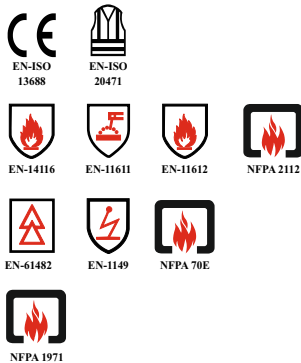
- Size –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
- More info in size guide

- Washcare –



- More info in washcare guide.

- Safety Performance –



- More info in safety guide



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Image for illustrative purpose only

- For more customization, please refer guide.



Woven Magic™

Fire Suit: Proximity

- **Industry** – Fire fighting
- **Outer Shell:**
 - ✦ GDI33 – 93% Meta-Aramid : 5% Para-Aramid : 2% Antistatic (Inherent FR)
 - Weave : Ripstop
 - Weight : 220 GSM
- **Thermal & Moisture Barrier :**
 - ✦ GDI89 – Meta Aramid : PU-FR : Para-Aramid, 140 GSM with PTFE lamination
 - Non-woven
 - Weight : 140 GSM
- **Inner Layer / Lining :**
 - ✦ GDI33 – 93% Meta-Aramid : 5% Para-Aramid : 2% Antistatic (Inherent FR)
 - Weave : Plain
 - Weight : 150 GSM

- **Size –**
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - More info in size guide

- **Washcare –**



- More info in washcare guide.

- **Safety Performance –**

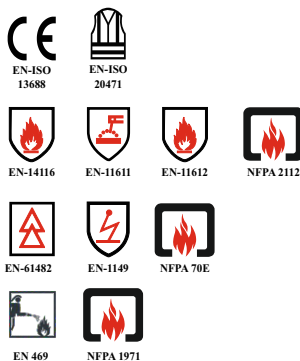


Image for illustrative purpose only

- For more customization, please refer guide.



Fire Suit: Entry

- **Industry** – Fire fighting
- **Outer Shell:**
 - ✦ GDI86A – 100% Para Aramid Aluminised (Inherent FR)
 - ✦ GDI86F – 100% Fiberglass Aluminised (Inherent FR)
- **Middle Layer :**
 - ✦ Optional use of GDI89 : Thermal / Moisture Barrier
- **Inner Layer / Lining :**
 - ✦ GDI33 – 93% Meta-Aramid : 5% Para-Aramid : 2% Antistatic (Inherent FR), 150 GSM
 - ✦ GDI32 – Modacrylic : Cotton : Para Aramid : Antistatic, 180 GSM
 - ✦ GDI36 – 100% Cotton with FR Treatment, 240 GSM



Image for illustrative purpose only

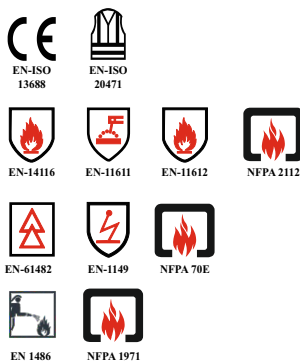
- **Size –**
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
- More info in size guide

- **Washcare –**



- More info in washcare guide.

- **Safety Performance –**



- More info in safety guide

- For more customization, please refer guide.



DEFENCE



Woven Magic™

CBRN Suit

- **Industry – Defense**
- **Outer Shell:**
 - ✦ 100% Nylon 66, 150 GSM
 - FR Treatment
 - Optional Camouflage printing
- **Middle Layer :**
 - ✦ Activated Carbon Fabric with nanopore structure
- **Inner Layer / Lining :**
 - ✦ Cotton: Polyester blend with Antimicrobial Treatment
 - ✦ Cotton : Viscose blend with Antimicrobial Treatment
- **Size –**
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - More info in size guide



Image for illustrative purpose only



- For more customization, please refer guide.



Woven Magic™

Bulletproof Jackets

- Industry – Defense
- Outer Shell:
 - ✦ 100% Nylon 66, 150 GSM
 - FR Treatment
 - ✦ ▪ PU (Polyurethane) Coating
 - ✦ ▪ Optional Camouflage printing
- Armour Panels:
 - Soft Armour Panels with Trauma protection
 - Hard Armour Panels with boron carbide plates
- Size –
 - ✦ XS to 5XL (ASIA)
 - ✦ 34 to 60 (US)
 - ✦ 34R to 60R (UK)
 - ✦ 44 to 70 (EU)
 - [More info in size guide](#)



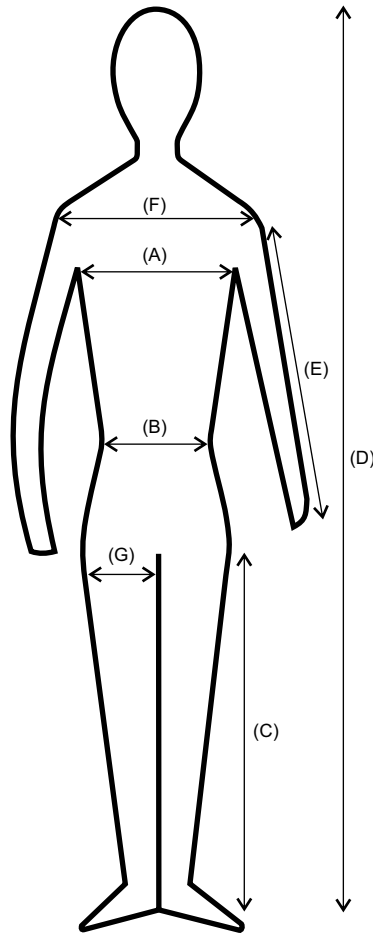
Image for illustrative purpose only

➤ [For more customization, please refer guide.](#)



Size

Guide



Measurement in cm		Sizes						
ASIA		S	M	L	XL	2XL	3XL	4XL
US		38-40	42-44	46-48	50-52	54-56	58-60	62-64
UK		38R-40R	42R-44R	46R-48R	50R-52R	54R-56R	58R-60R	62R-64R
EU		48-50	52-54	56-58	60-62	64-66	68-70	72-74
(A)	Chest circumference	117-123	121-127	125-131	133-139	143-149	149-155	155-161
(B)	Waist circumference	105-111	111-117	115-121	121-127	127-133	133-139	137-143
(C)	Inseam length	70-74	71-75	72-76	73-77	74-78	76-80	77-81
(D)	Full length	152-156	154-158	156-160	161-165	167-171	171-175	174-178
(E)	Sleeve length	56-58	57-59	58-60	59-61	60-62	61-63	62-64
(F)	Shoulder length	54-56	55-57	56-58	57-59	59-61	62-64	64-66
(G)	Thigh circumference	66-70	70-74	74-78	78-82	82-86	86-90	90-94



Washcare

Guide

Washing



Water temperature
30°C



Water temperature
40°C



Water temperature
50°C



Water temperature
60°C



Water temperature
70°C



Water temperature
95°C

Iron



Low temperature



Medium temperature



High temperature



Iron



Do not iron



No steam

Tumble Dry



Tumble dry



Low heat



Medium heat



High heat



Dry flat



Dry in the shade



No heat



Permanent press



Delicate



Hang to dry



Drip dry



Do not tumble dry

Dry Clean



Short cycle



Reduced moisture



Low heat



No steam finishing



Do not dryclean



Do not wet clean

Bleach



Any solvent



Any solvent except tetrachlorethylene



Petroleum solvent only



Wet cleaning



Non-chlorine bleach



Do not bleach



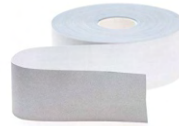
Reflective Tape

It is one of the most basic option to make a product your own by the means of customization.

Width: Availability to choose between 25 mm (1") or 50 mm (2")



25 mm



50 mm

Color: Options to choose between



Silver



Lime Yellow



Bi color (Y-S-Y)



Bi Color (O-S-O)

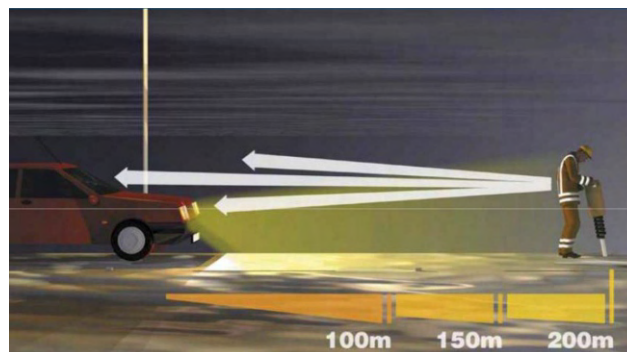
Flammability: Available options:

Normal Non FR Tape

FR Cotton backing Tape

IFR Aramid backing Tape

Customized Placement: We even offer the customers to decide for themselves where they would like to place the reflective tapes.



Retro Reflection Working

Perforation: To offer users a unique breath-ability we are also now providing perforated tapes to prevent any mishaps from the heat trapped under the reflective tapes.



Perforated Tape



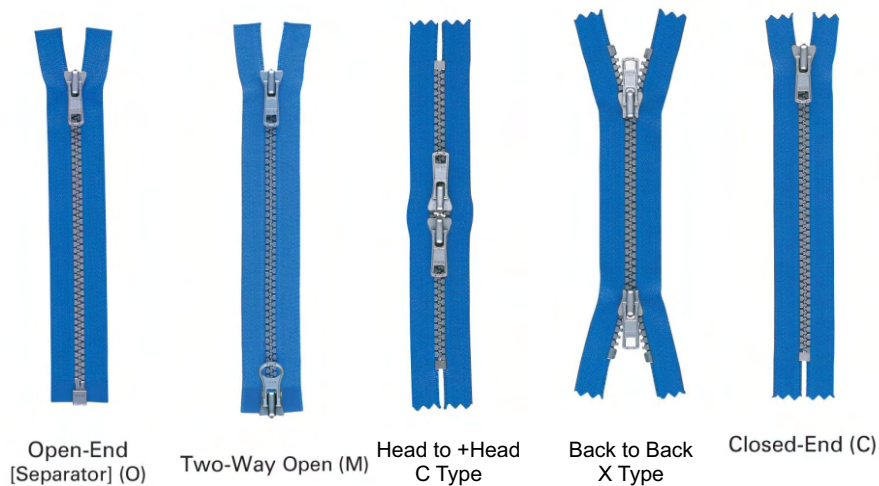
Zipper

As a manufacturer, it is our duty to provide customization everywhere possible as a service to our esteemed clients.

Material: We offer multiple materials for zipper - metallic, non metallic (Vislon & Coil)



Types:



Flammability: We are also offering Non FR as well as FR zippers

Thread

We also provide some options to choose between in the threads

Flammability: Options to choose between the following

- Non FR 100% Polyester Thread
- FR Polyester Thread
- IFR Aramid Thread



Pockets

It is another one of the elements which helps in personalising the standard products

Pocket Placement: We have certain predefined counts to help you choose the various placements

5: 2 Chest Pockets + 2 Side cross pockets + 1 Back pocket on either sides

6: All of above + 1 Back pocket (total of 2 back pockets)

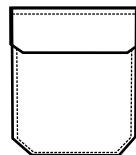
7: All of the above + 1 Tool Pocket on right side

8: All of the above + 1 Knee pocket on left side

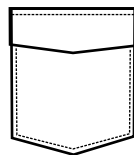
9: All of the above + 1 Knee pocket (total 2 knee pockets)

Customized Placement: As per your requirement

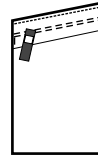
Pocket Style: We offer 3 standard variations of pocket styles as under:



Tri-Point
Style



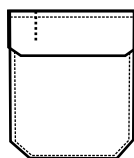
Zero Corner
Style



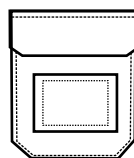
Slanting
Style

Optional Add on:

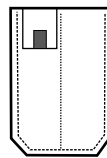
We have certain add on pockets which add to the overall utility as well as comfort of the end user. The following are some of the typical add ons available as options:



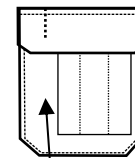
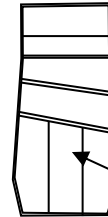
Pen Slots



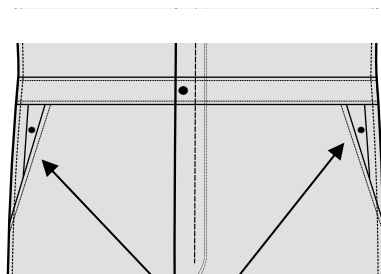
ID Holder
Pockets



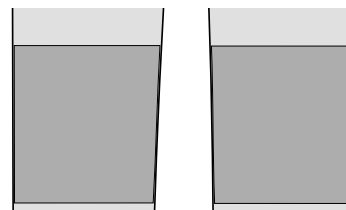
Sleeve
Pockets



Specialised Utility
Pockets



Pass through /
Vent Pockets



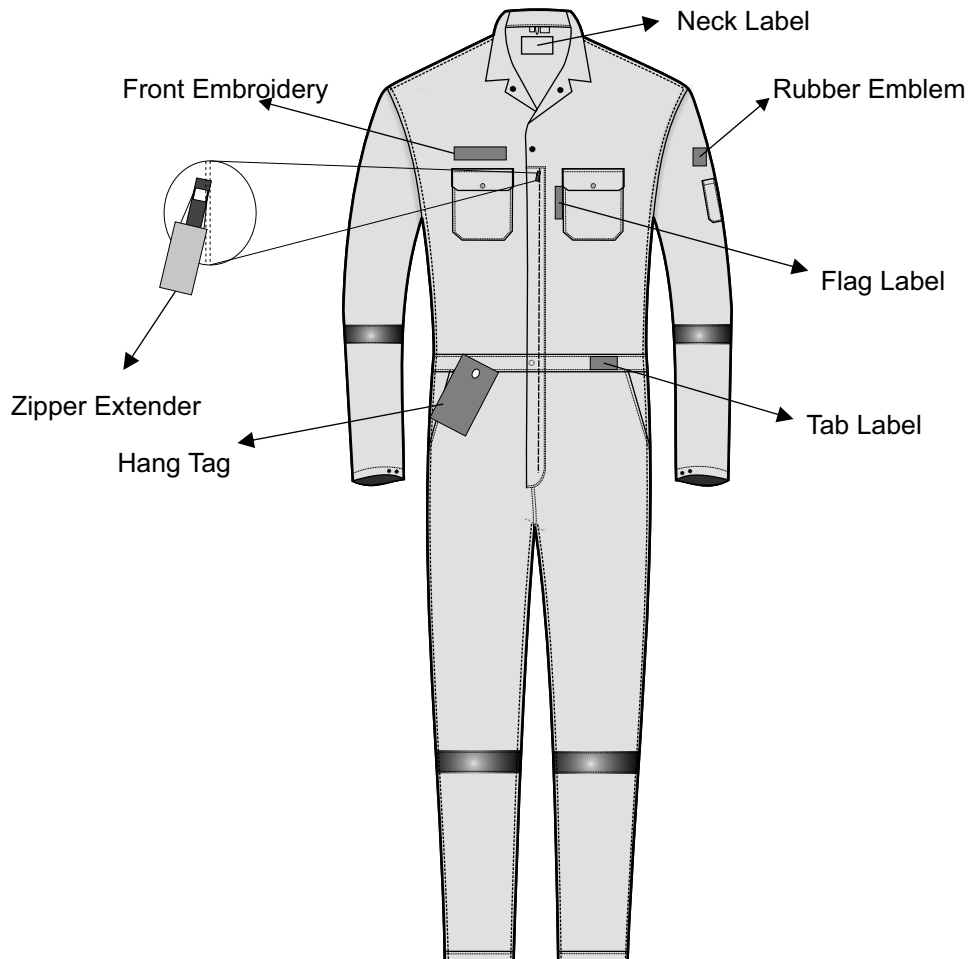
Kneepad
Pockets



Branding

This is the best option to personalize the product and promote your own brand in true sense

- **Woven Labels:** Options to add neck, tab & flag labels
- **Embroidery:** Option to add front & back embroideries
- **Screen Printing:** Option to print at front & back sides of garment
- **Zipper extender:** Option to add Zipper extenders under your brand
- **Rubber Emblems:** Options to add rubber emblems to promote the brand
- **Branded Packaging:** Options to add printed polybags, hang tags, display board etc





EN 13688: Protective Clothing – General Requirements



Parameters:

Ergonomics - Design Requirements,
Dimensional Change due to washing etc

Innocuousness - pH value, Formaldehyde content,
Azo dye content, etc

Size Designation - As per ISO 8559 (previously ISO 3635)

Ageing - Abrasion resistance, Strength etc

Compatibility and Marking - Manually & subjective

Supporting Information - Manually & subjective

EN 20471 : High visibility clothing



Compulsory Requirements :

Retro reflection co-efficient new:

330 cd (5° Illumination, 12° observation), after stress 100cd

Fluorescent background & Retro Reflective Coverage:

Class 1: - 0.14 sq. mt. (Background), 0.10 sq. mt (Reflective)

Class 2: - 0.50 sq. mt. (Background), 0.13 sq. mt (Reflective)

Class 3: - 0.80 sq. mt. (Background), 0.20 sq. mt (Reflective)

Minimum Washing Cycles: 5

Design Requirements:

A new requirement is that background (fluorescent) material must encircle all relevant parts (torso, arms and legs as appropriate) with a minimum width of 50mm.

EN 14116 : Protection against flame — Limited flame spread materials, material assemblies and clothing



Compulsory Requirements :

Test Parameter: Limited flame Spread (ISO 15025) - A1

Performance Levels:

Index 1: - No flame spread, No dripping, No after glow (>2s)

Index 2: - Index 1 + No holes (>5mm)

Index 3: - Index 2 + No after burn (>2s)



EN 11612: Protective clothing — Clothing to protect against heat and flame

Compulsory Requirements :

Heat Resistance at 180°C (ISO 17493): <5% shrinkage
Limited flame Spread (ISO 15025): A1 , A2
Dimensional Change due to washing (ISO 5077): <3%
Tensile Strength (ISO 13934-1): min. 300 N in both direction
Tear Strength (ISO 13937-2) : min. 10 N in both direction
Seam Strength (ISO 13935-2) : min. 225 N
pH Value (ISO 3071) : min. 3.5 & max 9.5

Optional Requirements :

Heat Resistance at 260°C (ISO 17493): < 10% shrinkage
Convective Heat (ISO 9151) - Code "B"
B1: 4 sec to 10 secs
B2: 10 secs to 20 secs
B3: Above 20 secs



Radiant Heat (ISO 6942) - Code "C"

C1: 7 sec to 20 secs
C2: 20 secs to 50 secs
C3: 50 secs to 95 secs
C4: Above 95 secs

Molten Aluminium Splash (ISO 9185) - Code "D"

D1: 100 g to 200 g
D2: 200 g to 350 g
D3: Above 350 g

This also works for bronze & other molten minerals

Molten Iron Splash (ISO 9185) - Code "E"

D1: 60 g to 120 g
D2: 120 g to 200 g
D3: Above 200 g

This also works for copper, brass, phosphor bronze.

Contact Heat (ISO 12127) - Code "F"

F1: 5 sec to 10 secs
F2: 10 secs to 15 secs
F3: Above 15 secs

Instrumented Manikin Test (ISO 13506):

Prediction of overall body burn percentage



EN 11611 : Protective clothing for use in welding and allied processes



Compulsory Requirements :

Limited flame Spread (ISO 15025) - A1 , A2

Dimensional Change due to washing (ISO 5077): max 3%

Tensile Strength (ISO 13934-1): min. 400 N in both direction

Tear Strength (ISO 13937-2) : min. 15 N in both direction

pH Value (ISO 3071) : min. 3.5 & max 9.5

Radiant Heat (ISO 6942):

Class 1: - HTI > 7sec

Class 2: - HTI > 16sec

Metal drops resistance (ISO 9150):

Class 1: - 15 drop

Class 2: - 25 drop

Electrical Resistance (EN 1149): < $10^9\Omega$

EN 61482 : Protective clothing against the thermal hazards of an electric arc

EN 61482-1-1

This part gives us the arc rating of the fabric by calculating the ATPV or EBT rating and plotting it through the Stoll's curve. At least 7 shots are conducted to have a fair plotting result. This is similar to the ASTM F1959



EN 61482-1-2

This part gives us the pass or fail result of the thermal risks of an arc which is passed for 500 ms.

It is further divided into 2 classes.

Class 1: 4000 A current is used.

Class 2: 7000 A current is used

EN 61482-2

This part complies of the design & material requirement of an arc protective garments.



EN 1149: Protective clothing with electrostatic properties

EN 1149-1 : Calculation of Surface resistivity of fabric

For homogeneous,

Resistance should $< 10^9 \Omega$

For heterogeneous,

Resistance $< 2.5 \times 10^9 \Omega$

10 mm distance between the conducting threads

EN 1149-2 : Calculation of Electrical resistivity of fabric

Same as per EN 1149-1 but it is vertical resistance



EN 1149-3 : Calculation of induction charge decay

Shielding factor > 0.2

Decay Half time < 4 secs

EN 1149-4 : Under development for garment testing

EN 1149-5 : Material & performance requirements of garments

- It should comply with EN 13688.
- Any metal parts / conductive parts must be hidden.
- Non conductive parts like RT, Labels etc should be permanently attached.
- Any compliant clothing is incomplete without proper shoes that conduct electricity.
- Outer layer of garment should always be in contact with the skin of the user.
- For a winter clothing, the seams shall be in contact with



EN 13034: Protective clothing against liquid chemicals



Compulsory Requirements :

Chemicals & their concentration:

30% Sulphuric acid (H₂SO₄)

10% Caustic lye (NaOH)

o-Xylene undiluted (Solvent)

100% Butan-1-ol undiluted (Solvent)

Repellency Index (EN 368) for atleast one of the chemicals:

Class 1: R > 80%

Class 2: R > 90%

Class 3: R > 95%

Penetration Index (EN 368) or atleast two of the chemicals:

Class 1: 5% to 10%

Class 2: 1% to 5%

Class 3: Less than 1%

Tensile Strength (ISO 13934-1): min. 30 N in both direction

Tear Strength (ISO 9073-4) : min. 10 N in both direction

Seam Strength (ISO 13935-2) : min. 30N N in both direction

Abrasion Resistance (EN 530) : min 10 cycles

Puncture Resistance (EN 863): min 5 N

Mist Test (Light Spray Test): No infiltration

EN 343 : Protective clothing – Protection against rain



Compulsory Requirements :

Water Penetration Resistance (EN 20811) denotes x

Class 1: - More than or equals 8000 mm without 5 wash cycles

Class 2: - More than or equals 8000 mm with 5 wash cycles

Class 3: - More than or equals 13000 mm with 5 wash cycles

Water Vapour Permeability (EN 31092) denotes y

Class 1: - Ret > 40

Class 2: - 20 < Ret ≤ 40

Class 3: - Ret ≤ 20

Tensile Strength (ISO 13934-1): min. 450 N in both direction

Tear Strength (ISO 13937-2) : min. 25 N in both direction

Seam Strength (ISO 13935-2) : min. 225 N in both direction

Abrasion Resistance (ISO 12947-1) : 25000 cycles@ 9kPa

Design Requirements additional to EN 13688:

The garments should be free from rough edges,

All pockets to avoid penetration of water.

Closures should not open inadvertently



EN 469 : Protective clothing for firefighters

Compulsory Requirements :

Limited Flame Spread (ISO 15025): Procedure A

Heat Transfer Flame (EN 367): denotes "Xf"

Class 1: - HTI₂₄ > 9sec , HTI₂₄ - HTI₁₂ > 3sec

Class 2: - HTI₂₄ > 13sec , HTI₂₄ - HTI₁₂ > 4sec

Heat Transfer Radiation (ISO 6942): denotes "Xr"

Class 1: - HTI₂₄ > 10sec , HTI₂₄ - HTI₁₂ > 3sec

Class 2: - HTI₂₄ > 18sec , HTI₂₄ - HTI₁₂ > 4sec

Heat Resistance at 180°C (ISO 17943): <5% shrinkage

Tensile Strength (ISO 13934-1): min. 450 N in both direction

Tear Strength (ISO 13937-2) : min. 25 N in both direction

Seam Strength (ISO 13935-2) : min. 225 N

Surface Wetting (EN 24920): Spray Rate > 4

Dimensional Change due to washing (ISO 5077): < 3%

Resistance to Chemical Penetration (ISO 6530):

Chemicals & concentration:

30% Sulphuric acid (H₂SO₄)

40% Caustic lye (NaOH)

o-Xylene undiluted (Solvent)

Repellency > 80%

Penetration to innermost layer = NIL

Resistance to Water Penetration (EN 20811):

Class 1: <20kPa for garments without moisture barrier

Class 2: Above 20kPa for garments with moisture barrier

Water Vapour Resistance (EN 31092): denotes "Z"

Class 1: >30m² Pa/W and < 45m² Pa/W

Class 2: < 30m² Pa/W

Optional Requirements:

Instrumented Manikin Test: For testing total body burn rate





EN 1486 : Protective clothing for specialised firefighting

Types:

Type 1: Protective hood with a sight grid, worn with hand and foot protection, to be worn above other protective clothing

Type 2 : A coat including a protective hood with a sight screen, worn with appropriate head and foot protection.

Type 3 : Encloses the body completely. It includes a protective hood with a sight screen, heat protective boots, worn with appropriate head protection.

Compulsory Requirements :

Flame Spread (EN 537):

No holes, melting or dripping

After-flame time: ≤ 2 s, Afterglow time: ≤ 2 s

Radiant Heat (EN 366):

Type 1: $t_2 \geq 30$ secs

Type 2: $t_2 \geq 60$ secs

Type 3: $t_2 \geq 120$ secs

Convective Heat (EN 367):

Type 1: HTI ≥ 4 secs

Type 2: HTI ≥ 13 secs

Type 3: HTI ≥ 21 secs

Contact Heat (EN 702):

Type 1: HTI ≥ 6 secs

Type 2: HTI ≥ 10 secs

Type 3: HTI ≥ 15 secs

Tensile Strength (ISO 13934-1): min. 600 N in both direction

Tear Strength (ISO 13937-2) : min. 25 N in both direction

Dimensional Change due to washing (ISO 5077): $< 3\%$

Additional Requirements:

Sizes should be in accordance with EN 340

Hand protection in accordance with EN 659

Head protection in accordance EN 443.

Foot protection in accordance with EN 344

Closure system: rapid removal of the clothing

No exposure of the hardware to the innermost surface.

Pockets if present should be secured with flaps.





NFPA 2112 : Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire

**ASTM F2700 - Heat Transfer Performance:**

Spaced TPP >25 J/cm² (6 cal/cm²)

Contact TPP >12.6 J/cm² (3 cal/cm²)

ASTM D6413 - before and after 100 wash cycles:

Char length of Fabric & RT < 100 mm (4 inch)

Afterflame <= 2 seconds, shall not melt and drip.

ASTM F2894 - Heat and Thermal Shrinkage:

Thermal Shrinkage of fabric < 10%

ASTM F1930 - Manikin Test:

Burn Prediction rate through instrumented manikin < 50%

ASTM D7138 Method B - Thread Melt:

Thread should be of IFR material

Additional Requirements:

- Interlining, collar stays, elastics, closures, and hook and pile fasteners, when not in direct contact with the skin, shall not be required to be tested for heat resistance.
- Any materials used in hardware including but not limited to fabric, thread, zipper, buttons shall be individually tested to heat

NFPA 70E : Standard for Electrical. Safety in the Workplace

**ASTM F1959 - Arc Testing:**

HRC1: 4 to 7 cal/cm²

HRC2: 8 to 24 cal/cm²

HRC3: 25 to 40 cal/cm²

HRC4: Above 40 cal/cm²

ASTM D6413 - before & after 25 wash cycles:

Char length of Fabric & RT < 100 mm (4 inch)

Afterflame <= 2 seconds, shall not melt and drip.

AATCC 61 Method 2A - Colorfastness: Min 3**ASTM D434 - Seam slippage:**

3.0-5.9 oz/yd²: 134 N

6.0-8.4 oz/yd²: 179 N

8.5 oz/yd² or higher: 223 N

ASTM D1424 - Elmendorf Tear:

3.0-5.9 oz/yd²: 11 N

6.0-8.4 oz/yd²: 18 N

8.5 oz/yd² or higher: 22 N

ASTM D5034 - Breaking Strength:

3.0-5.9 oz/yd²: 134 N

6.0-8.4 oz/yd²: 179 N

8.5 oz/yd² or higher: 223 N

AATCC 135- Dimensional Change: Warp: +/- 3%, Weft: +/-2%



NFPA 1971 : Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting

Compulsory Requirements

ISO 17492 - Heat Transfer Performance:

TPP >35 J/cm²

ASTM D6413 - before and after 100 wash cycles:

Char length of Fabric & RT < 100 mm (4 inch)

Afterflame ≤ 2 seconds, shall not melt and drip.

ASTM F2894 - Heat and Thermal Shrinkage:

Thermal Shrinkage of fabric < 10%

ASTM D7138 Method B - Thread Melt:

Thread should not melt at or below 260°C

ASTM D5587 - Tear Strength:

Outer Shell: 100N

Thermal Barrier/ Moisture barrier / Lining: 22N

ASTM D1683 - Seam Breaking Strength:

Major A: 667N

Major B: 334N

Minor: 180N

Water Penetration Resistance of Moisture barrier: > 175kPa

ASTM F903 - Liquid Penetration Resistance:

No penetration for atleast 1 hour.

ASTM F1671 - Pathogen Penetration Resistance:

No penetration of Phi-X-174 Bacteriophage for atleast 1 hour.

AATCC 135 - Dimensional Change: +/- 5%

AATCC 42 - Water Absorption: Outer Shell / Linings <15%

ASTM D5034 - Breaking Strength: min 623N

ASTM B117 - Corrosion Resistance from salt spray:

All metallic hardware shall remain functional.

ASTM G155 - Light Degradation Resistance:

No water penetration after test for moisture barrier

Additional Requirements for Structural Fire Fighting Only

ASTM F1868 - Total Heat Loss Test: > 205 W/m²

ASTM E809 - Retro Reflection Test: > 100 cd/lux/m²

Additional Requirements for Proximity Fire Fighting Only

ASTM F1939 - Radiant Performance Test: >20 secs

AATCC 35 - Wet Flex Test: no signs of cracking on the face or delamination.

Adhesive Wet Flex Test: Outer shell shall show no signs of removal of surface coating

Low Temperature Flex Test: Outer shell shall show no evidence of breaking, shattering, or cracking of the coating, laminate, or fabric.

Resistance to High Temperature Blocking: Outer shell shall show no signs of blocking.





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