

CLYDESDALE

Powering the Future

User Instructions:

Noah Winter Garments

Clydesdale NOAH Arc Flash Protection Winter Jacket

Product No's:

CLY 585 359 x



Clydesdale NOAH Arc Flash Protection Winter Fleece

Product No's:

CLY 586 179 x



JACKET / FLEECE – SIZE NUMBERING										
ORDER CODE SUFFIX, X	0	1	2	3	4	5	6	7	8	9
CHEST	88-96 (35-38)	92-100 (36-39)	96-104 (38-41)	100-108 (39-43)	104-112 (41-44)	108-116 (43-46)	112-120 (44-47)	116-124 (46-49)	120-128 (47-50)	124-132 (49-52)
SLEEVE	63 (25)	63 (25)	64 (25)	64 (25)	65 (25.5)	65 (25.5)	66 (26)	67 (26.5)	67 (26.5)	67 (26.5)
SIZE ON LABEL	XS	S	M	L	XL	2XL	3XL	4XL	5XL	6XL

Example of Jacket with XL sizing is CLY 585 359 4

Example of Fleece with 2XL sizing is CLY 586 179 5

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The products described on Page 1 are referred to as 'the PPE' or 'the garment(s)' in this document. 'The User' is the wearer of the PPE. The PPE conforms with the European PPE Directive 89/686/EEC through compliance EN ISO 11612:2008, IEC 61482-2:2009, EN 61482-1-1:2009, EN 61482-1-2:2007, as well the Essential Health and Safety Requirements according to PPE directive, Article 3.

CAREFULLY READ THESE INSTRUCTIONS BEFORE USING THIS PRODUCT

1. Intended Use of the PPE:

THE PPE IS PRIMARILY INTENDED TO PROTECT THE USER FROM THE THERMAL EFFECTS OF AN ELECTRIC ARC FLASH. IT ALSO PROTECTS FROM SEVERAL CATEGORIES OF HEAT TRANSFER, MOLTEN METAL SPLASH AND FLAME IGNITION ACCORDING TO EN ISO 11612:2008 (SEE TABLE)

The PPE is NOT intended to be used to provide protection against other risks such as electric shock, mechanical impact, mechanical vibration, physical injury (abrasion, perforation, cuts, bites) or harmful effects of noise.

THE PPE MUST NOT COME IN TO CONTACT WITH LIVE EQUIPMENT. WHENEVER POSSIBLE, ALWAYS DE-ENERGISE CIRCUITS BEFORE WORKING ON OR AROUND THEM.

The PPE is only intended to provide protection for the arms and torso of the user. Leg, Neck, Head, Foot and Hand protection must also be provided, using compatible PPE as described in section 4 of this document.

The PPE is listed with an Arc Rating (ATPV or E_{bt50}) as shown in this document.

Arc Thermal Performance Value (ATPV) is the incident energy from an electrical arc on a fabric, garment or a multi-layered system that results in a 50% probability that sufficient heat transfer through the tested specimen is predicted to cause the onset of a second degree skin burn injury based on the Stoll curve, without the garment or material breaking open.

Break Open Threshold Energy (E_{bt50}) is the incident energy from an electrical arc on a fabric, garment or a multi-layered system that results in a 50% probability that the test subject will break open.

For each application where there is a risk of an electric arc occurrence, a suitable Arc Flash Hazard Analysis must always be conducted by a competent person to ascertain the potential incident energy that an electric arc could emit. Each application is unique and can be defined by the following factors: Arc fault current, Supply voltage, Electrode gap, Number of phases of system, Electrical equipment environment (open air or enclosure), Arc duration, Distance of the PPE user to arc. Software for calculating the correct ATPV class can be obtained from <http://www.clydesdale.net/heatflux.asp>.

Once an Arc Flash Hazard Analysis has been conducted, the PPE of an appropriate Arc Rating must be selected.

THE ARC RATING OF ALL OF THE PPE SELECTED FOR THE APPLICATION MUST BE HIGHER THAN THE CALCULATED INCIDENT ENERGY FROM THE ELECTRIC ARC.

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The PPE should always be worn correctly by the user when entering a hazardous area as follows: All zips should be fully closed, and all hook & pile flaps closed fully and flush with no hook or pile portions exposed. The PPE should not be worn in such a way that the wearer's undergarments or skin may be exposed – for example rolling up sleeves or leaving front poppers undone. The PPE should always fit the user correctly. If the PPE is either too loose or too tight, the PPE will not provide an optimum level of protection. All of the PPE products are available in a range of sizes: XS – 6XL to ensure the PPE can be selected to fit the user correctly.

IN THE EVENT OF ACCIDENTAL SPLASH WITH FLAMMABLE OR OTHERWISE HAZARDOUS LIQUID CHEMICALS, LEAVE THE WORK AREA AND IMMEDIATELY REMOVE THE PPE, TAKING CARE NOT TO ALLOW THE CHEMICALS TO COME IN TO CONTACT WITH THE SKIN.

The PPE is intended to provide improved comfort compared to our standard NOAH garments at reduced working temperatures, it is not expected to provide certified cold weather performance.

2. Construction, selection, layering and sizing of PPE

PPE Protection Chart				
Garment			Winter Jacket (CLY 585 359 x)	Winter Fleece (CLY 586 179 x)
Fabric Properties		Westex Fabric used	INDURA Ultrasoft®	
		Westex Fabric Style used	180	451 over 710
		EN 61482-1-1, Arc Rating (cal/cm ²)	17.9 E _{bt50}	35.9 ATPV
		EN 61482-1-2, Arc Class, Box Test	Class 2	Class 2
		EN ISO 11611, Welding and Allied processes (Class 1)	No	No
		EN ISO 11612, Heat and Flame protection (A1, A2, B1, C1)	Yes	Yes
		EN ISO 11612, Contact Heat Protection (F1)	Yes	Yes
		Weight (g/m ²)	400	305 over 390

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3. Cleaning, Maintenance and Life Span:

The PPE should be kept clean & dry to provide the optimum level of protection. SOILED CLOTHING PROTECTS LESS.

Explanation of symbols:



The PPE should not be washed in temperatures over 70°C*



The PPE is dry-cleanable. Do not use trichloroethylene



Tumble dry at normal temperature* Do not over-dry



Chlorine bleaches such as those containing sodium hypochlorite, oxygen bleaches such as hydrogen peroxide as well as soaps (salts of fatty acids) should not be used to wash the PPE either separately or in detergents as they may affect the protective properties of the PPE

*Note: CLY 586 179 Winter Fleeces are intended for home washing only. The ideal wash temperature is 30°C (maximum 40°C) and if garments are tumble dried, this should be on a gentle cycle and the garments should be removed before fully dry and line dried. Over-drying will result in shrinkage.

In order to provide an optimum level of protection, the PPE must be maintained in its original condition. If the PPE becomes damaged due to factors such as rips, cuts, abrasion and perforation, it may not provide the optimum level of protection and must be replaced.

Do not attempt to repair the PPE.

INSPECT THE PPE BEFORE EACH USE. DO NOT ATTEMPT TO USE THE PPE FOR ITS INTENDED PURPOSE IF THE PPE'S CONDITION IS IN DOUBT

The PPE's protective properties are permanent, tested and guaranteed for its entire life span - the arc flash and flame retardant properties cannot be washed out.

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4. Compatibility and Accessories:

Suitable combinations of the PPE must be worn to provide complete limb and torso protection from the thermal effects of an electric arc flash. Any garments from the Clydesdale NOAH system may be worn together as part of a complete protection system in conjunction with these winter garments.

It is strongly recommended that a Clydesdale NOAH long sleeve polo shirt or Arc Rated SITEX underwear is worn as a minimum under these winter garments.

Any clothing worn under a Clydesdale NOAH garment should be of a non-melting construction to ensure the effectiveness of the NOAH protection.

For neck and head protection from the thermal effects of an electric arc flash, the use of a Clydesdale Arc Flash Protection Hood or Visor with an equal or higher Arc Rating to the main PPE is recommended. Please contact Clydesdale for further details.

For hand protection it is recommended that appropriate Clydesdale Insulating Gloves are worn in conjunction with Clydesdale Leather Protector Gloves to provide mechanical protection. Please contact Clydesdale for further details.

Foot protection should be provided for with heavy duty leather work shoes which will normally provide a significant level of protection of 5 cal/cm² and above.

No modification of the PPE is permitted, including affixation of logos, after the EC Type-Examination.

5. Storage and Transport:

The PPE is packed and delivered in a clear polythene bag. The PPE should be stored or transported, preferably in a similar polythene bag, in a dry and dust free environment, protected from mechanical effects, UV light, temperature extremes and chemicals which may damage the PPE. This polythene bag must be disposed of in accordance with company and government guidelines

6. Significant Markings:

Each PPE garment has an external transfer marking indicating the Arc Rating at which the PPE can protect the user. This depicts a flame symbol together with the Arc Rating in cal/cm² of the garment. An internal label indicates the Arc Rating and double triangle symbol, arc class, CE mark, manufacturers details, product reference numbers, EN ISO 11612 flame symbol and code letters and additional relevant standards the PPE conforms to. A further internal label shows the sizing and washing information

7. Details of Notified Body: BTTG Certification Services, Unit 14, Wheel Forge Way, Ashburton Rd West, Trafford Park, Manchester, M17 1EH, United Kingdom. Notified Body #0339