



ESD Polo Shirts Instructions for Use



Figure 1. Charleswater ESD Polo Shirt

Description

Charleswater ESD Polo Shirts meet the required limit Rp-p less than 1×10^{12} ohms in EN 61340-5-1 tested per ANSI/ESD STM2.1.

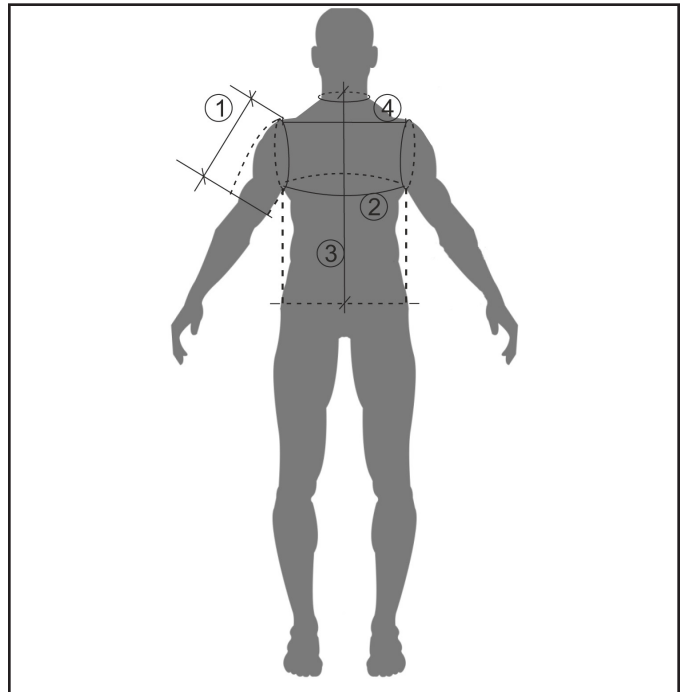
“The ESD risk provided by everyday clothing cannot be easily assessed. The current general view of experts is that the main source of ESD risk may occur where ESDS [ESD sensitive items] can reach high induced voltage due to external fields from the clothing, and subsequently experience a field induced CDM [Charged Device Model] type discharge. So ESD control garments may be of particular benefit where larger ESDS having low CDM withstand voltage are handled, and operators habitually wear everyday clothing that could generate electrostatic high fields.” [CLC TR 61340-5-2 User guide Garments sub-clause 4.7.7.1 Introductory remarks]

Main features:

- Static dissipative knitted fabric
- Rp-p: 10^5 to $< 1 \times 10^{11}$ ohms tested per ANSI/ESD STM2.1
- Composition: Cotton, polyester and conductive fibres
- Finish: crease resistant
- Unisex sizes from XS to XXL (see table)
- ESD protective symbol on breast pocket
- V-collar with snap-fastener
- Short sleeves
- Optimized width of conductive grid
- Machine washable (40°C); resistant to repeat washing cycles
- Ironing possible at up to 110°C

- Tumble-dry at low temperature
- Standard colour: royal blue
- Custom colours available
- Company logo (embroidered) available on request
- Made in Hungary

Sizes and Measurements



Part #	Size*	Sleeve (1)	Chest (2)	Length (3)	Shoulder (4)
72140	XS	21.5	108	63	42
72141	S	21.5	112	63	44
72142	M	23	116	68	44
72143	L	23.5	120	72	46
72144	XL	25	128	74	48
72145	XXL	25	130	78	51

Please note that measurements are in cm and are an indication only.

The dimensions in the chart refer to measurements BEFORE WASHING. Garments will shrink 8-10% after initial washing.

Measurements equal average sizes and can be subject to change without notice.

*Unisex fit both for Men and Women

Washing Instructions

The conductive fibres are sensitive to heat, alkali, acids, fabric softeners and bleaches.

We recommend:

- Wash in hot/warm water (max. 40°C) using a neutral detergent
- Do not use fabric softeners or bleach; do not dry clean
- Tumble-dry at lowest temperature
- Generally no ironing required; if required, iron at max. 110°C temperature.

Technical Properties:

Composition (nominal)	
Cotton	50%
Polyester	47%
Conductive Fibres	3%
Washing Instructions	
Washing	Machine washable up to 40°C
Ironing	Ironing temperature up to 110°C
Bleaching	Do not bleach
Tumble Drying	Low drying temperature
Surface Resistance	
Rp-p per ANSI/ESD STM2.1	10^5 to $< 1 \times 10^{11}$ ohms

Limited Warranty

Charleswater expressly warrants that for a period of one (1) year from the date of purchase, Charleswater ESD Polo Shirts will be free of defects in material (parts) and workmanship (labour). Within the warranty period, a unit will be tested, repaired or replaced at Charleswater's option, free of charge. Call Customer Service at 0044 (0) 1892 665313 for a Return Material Authorisation (RMA) and for proper shipping instructions and address. Any unit under warranty should be shipped prepaid to the Charleswater factory. You should include a copy of your original packing slip, invoice, or other proof of purchase date. Warranty repairs will take approximately two weeks.

If your unit is out of warranty, Charleswater will quote repair charges necessary to bring your unit to factory standards. Call Customer Service at 0044 (0) 1892 665313 for a Return Material Authorisation (RMA) and proper shipping instructions and address.

Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

Limit of liability

In no event will Charleswater or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.