

# TECHNICAL DATASHEET

## TKZF ESD T-SHIRT

SHORT SLEEVE, ROUND NECK, BREAST POCKET



D és Tsa Bt. • 2600 Vác, Gálcsék u. 8-10. • Tel.: +36 27 502 555 • Fax: +36 27 200 835 • sales@destsa.hu • destsa.hu • dlb.hu

### FEATURES

- » **Standard sizes:** female XS - 5XL
- » Slim style
- » Round neck
- » Breast pocket with ESD logo

### FABRIC PROPERTIES

- » Static dissipative knitted fabric (with carbon yarn)
- » **Finish:** Crease resists, workwear
- » **Charging time:** < 2 seconds
- » Complies with IEC 61340-4-9:2024 and ANSI/ESD STM2.1:2018, and keeps this compliance after more than 40 industrial washings
- » Developed for industrial washing

#### TS15

- » **Composition:** 96% Cotton, 4% Conductive fiber
- » **Fabric Weight:** 150 g/m<sup>2</sup>
- » **Resistance from point to point (Rp):** 10<sup>6</sup> - 10<sup>7</sup> Ohm

#### EECO-TS15

- » **Composition:** 96% Cotton 4% Conductive fibre
- » **Fabric weight:** 160 g/m<sup>2</sup>
- » **Resistance from point to point (Rp):** < 10<sup>9</sup> Ohm

#### TS16

- » Static dissipative knitted PIQUE fabric (with carbon yarn)
- » **Composition:** 96% Cotton, 4% Conductive fiber
- » **Fabric Weight:** 210 g/m<sup>2</sup>
- » **Resistance from point to point (Rp):** 10<sup>6</sup> - 10<sup>7</sup> Ohm

#### PS21

- » **Composition:** 47% Polyester 50% Cotton 3% Conductive fiber
- » **Fabric Weight:** 210 g/m<sup>2</sup>
- » **Resistance from point to point (Rp):** 10<sup>6</sup> - 10<sup>7</sup> Ohm

#### EECO-PS21

- » **Composition:** 48% Cotton 48% Polyester 4% Conductive fibre
- » **Fabric weight:** 215 g/m<sup>2</sup>
- » **Resistance from point to point (Rp):** < 10<sup>9</sup> Ohm

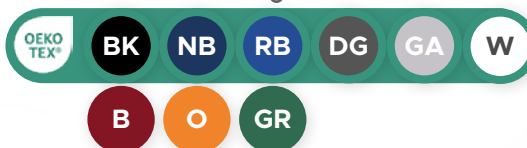


Models with **OEKO-TEX®**  
**STANDARD 100** certification  
are also available



**Economy** – products  
with economy price

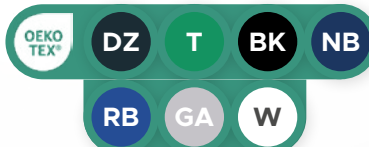
#### TS15 FABRIC



#### TS16 FABRIC



#### EECO-TS15 FABRIC



#### PS21 FABRIC



#### EECO-PS21 FABRIC



### ORDERING CODE SAMPLE

**TKZF** - **TS15** - **W** **L**  
style fabric color size

Clothing certified according  
to the international ESD  
standards, as indicated by  
this/similar label



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The sizes given here meant values before washing.

SIZE CHART (CM)	XS	S	M	L	XL	XXL	3XL	4XL	5XL
Sleeve	20,5	21,5	22,5	23,5	25	26,5	28	29,5	31
Length	63	66	69	72	75	78	81	84	87
Chest	82	86	91	96	102	110	114	118	122
Waist	66	70	75	80	86	94	98	104	108
Hip	90	94	99	105	111	117	123	129	135
Shoulder	39	40	41	42	43	44	45	46	47



You can contact us too for customized embroidered or screen printed company logos, lettering, custom designed ESD clothing.

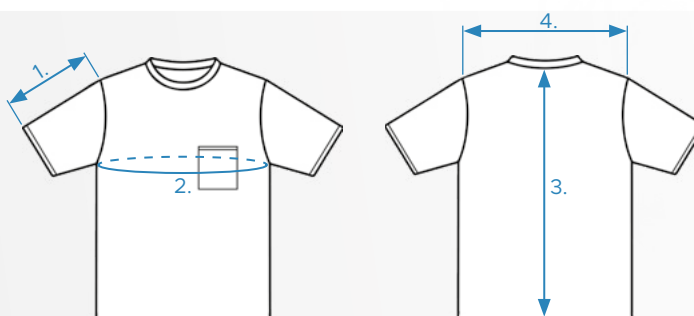
Size tolerance (Before washing): 2%  
We suggest to determine personal size with measurement on washed clothes.



The sizechart below shows the dimensions before washing.  
After washing, it should be calculated with a shrinkage of 8-10% for width (mainly for breast size).

## DESCRIPTION

1. Sleeve
2. Chest
3. Length
4. Shoulder



## WASHING INSTRUCTIONS

Conductive carbon fibres used in ESD fabrics are very sensitive to high temperatures, alkalis, acids, rinses (softeners) and bleaches. Inadequate use may cause damage to carbon fibres and ESD clothing may lose or significantly deteriorate ESD parameters. Therefore, wash ESD clothing very carefully, in each case please follow the instructions:

### TS15, EECO-TS15, TS16, PS21, EECO-PS21 FABRICS

- i** In the case of knitted fabrics we suggest to determine personal size with measurement on washed clothes. The sizes given by us in size charts meant values before washing regarding products made from these fabrics.
- i** We recommend, in order to preserve the conductivity of the garment in the long term, to entrust washing and drying processes to an industrial laundry where they can provide the necessary technological processes and conditions (documented washing procedures and suitable environment). Adapt the associated cleaning processes to the production technology (e.g. cleanroom requirements) of the product at the place of use.
- i** If the used production technology does not require specific cleaning processes, do washing in cold or lukewarm water at a temperature not warmer than 40 °C (104 °F) with neutral (liquid) detergent.
- i** Ironing of the garment is not necessary or recommended. If the user does iron the garment, iron at a maximum temperature of 110 °C (230 °F) without steaming.
- i** Bleachers are forbidden. Do not use rinse aids or detergents with a high alkali or acid content. Do not use detergents and / or rinse aids that contain bleach and / or chlorine.
- i** Do not use perfumes and deodorants as they may damage the fabric and the color of the product
- i** Do not dry clean. Tumble drying is prohibited.
- i** Wash all garments inside out
- i** Do not expose clothing to direct UV rays. Tighten the zippers before each wash



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## WARRANTY

- ❗ The warranty is strictly valid under controlled and documented industrial laundry conditions, concern the fabric washing cycle as specified in the technical data's.
- ❗ The warranty is NOT valid if the washing process is made in home environment!
- ❗ The warranty covers ESD parameters and possible sewing errors according to IEC 61340-4-9:2024 and ANSI/ESD STM2.1:2018 standard issued only!
- ❗ The warranty does not cover the size and shrinkage differences within the tolerances given at the size charts!
- ❗ Our clothing products are provided with the „Operating instructions with symbols” according to the EN ISO 3758:2023 standard.
- ❗ If the product shows improper tampering (e.g. tread extension or tearing), the complaint can be rejected.



The availability of products manufactured from the colors shown may vary.  
For current expected delivery times and other requested colors please contact us.