

TDC12 (1304) DTZS  
First edition



**DRAFT TANZANIA STANDARD**

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**Protective Textiles – Performance requirements for rainwear and all-purpose, water-repellent coat fabrics – Specifications**

Stakeholder's comments

**TANZANIA BUREAU OF STANDARDS**

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## FOREWORD

This Draft Tanzania Standard is issued to help manufacturers/retailers of woven and knitted of housecoat and dressing-gown fabrics to come up with products of defined quality. This Draft Tanzania Standard covers the requirements of rainwear and all-purpose water-repellent coat outer fabrics composed of any textile fibre or mixture of textile fibres.

In the preparation of this Draft Tanzania Standard, assistance was derived from:

ASTM D7017-14 Standard Performance Specification for Rainwear and All-Purpose, Water-Repellent Coat Fabrics

Stakeholder's comments

## 1. SCOPE

This Draft Tanzania Standard specifies performance requirements, test methods and sampling plan for rainwear and all-purpose water-repellent coat outer fabrics composed of any textile fibre or mixture of textile fibres.

## 2. NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

TZS 4: Rounding off numerical values

TZS 21: Textiles — Woven or knitted fabrics — Determination of mass per unit length and per unit area.

TZS 22: Textiles — Woven fabrics — Determination of breaking load and extension.

TZS 24: Method for determination of colour fastness of textile materials to washing: Test 4: severe washing

TZS 27: Determination of dimensional change of woven Fabrics-Cold water immersion

TZS 40: Textiles — Tests for colour fastness — Colour fastness to light Daylight

TZS 44: Textiles — Woven or knitted fabrics — Determination of length and width

TZS 138: Textiles – Test for colour fastness to rubbing

TZS 280: Textiles – Tests for colour fastness – colour fastness to perspiration.

TZS 534: Textiles – Standard atmospheres for conditioning and testing

## 3. TERMS AND DEFINITIONS

For the purpose of this Draft Tanzania Standard, the following terms and definitions shall apply:

### 3.1. rainwear fabric

waterproof or water-resistant fabric

### 3.2. water-repellent fabric

fabric treated with a finish that is resistant but not impervious to penetration by water

### 3.3. water resistance fabric

fabric able to resist the penetration of water to some degree but not entirely.

## 4. REQUIREMENTS

### 4.1 General requirements

4.1.1 The rainwear/coat shall

4.1.1.1 be a hooded type coat with a full zip or any other type of fastening and waterproof taped seams. The fabric shall also be windproof/ waterproof and allow for moisture vapour transmission (breathability).

4.1.1.2 have a high visibility silver reflective tape of not less than 50 mm wide sewn to the shell for night-time safety.

4.1.1.3 have seams and retro-reflective tape be sealed with hot air applied on the tape to ensure waterproof integrity. The minimum fabric requirements shall meet the performance level for the fabric as listed in Table 1.

4.1.1.4 have a colour fastness be measured in accordance with the procedures in Table 1.

### 4.2 Performance requirements

4.2.1. The fabrics intended for rainwear and all-purpose, water-repellent coat end use shall meet all of the requirements as specified in Table 1.

#### 4.2.2 Breaking strength.

Unless otherwise stated, the requirements given in Table 1 shall apply equally to both warp (length) direction and weft (width) direction,

#### 4.2.3 Dimensional changes

The dimensional changes both warp and weft direction requirements before and after washing or dry cleaning shall apply as given in Table 1.

#### 4.2.4 Colour fastness

The values specified shall be the minimum numerical ratings, determined in accordance with the relevant test method as given in Table 1 and, unless otherwise stated, the requirements shall apply to dyed or printed fabrics only.

**Table 1 – Requirements for rainwear and all-purpose, water-repellent coat end use**

Parameter		Requirement	Test method	
Material composition, %		Shall be as declared subject to a tolerance of $\pm 2$	TZS 326 TZS 327	
Breaking strength, N, min.		150	TZS 22	
Tearing strength, N, min		13		
Dimensional changes, Shrinkage or elongation, %, <i>max</i> .		$\pm 3$	TZS 27	
pH value		6.0 to 8.5	TZS 26	
Water repellence;			TZS 3114: 2021/ ISO 9865: 1991	
Smooth-textured fabrics:				
Original		90		
After 5 laundering or 3 dry cleanings		70		
Rough-textured:			TZS 3115: 2021/ ISO 811: 2018	
Original		80		
After 5 launderings or 3 dry cleanings		70		
Water resistance (categories based on time for maximum weight increase at following head pressures):			TZS 3115: 2021/ ISO 811: 2018	
Shower 600mm (2 ft) for 30 seconds		1 gram, max		
Rain 600mm (2ft) for 2 seconds		1 gram, max		
Storm 900mm (3ft) for 5 minutes		1 gram, max		
Colour fastness to	Light		4 or better	TZS 23
	Washing		4 or better	TZS 24
	Rubbing	Dry	4 or better	TZS 138
		Wet	3 or better	TZS 138
	Perspiration		4 or better	TZS 280
Dye properties		Non-carcinogenic  Non-allergic	TZS 2007-2	

## 5. MARKING AND PACKING

### 5.1. MARKINGS

The following information shall be printed on a suitable label firmly attached to each packaging:

- a) description of the material.
- b) manufacturer's name, address or reference (initials or trademark) and if required supplier's name or reference,
- c) design number, and
- d) care label

### 5.2. PACKAGING

5.2.1 The rainwear and all-purpose water-repellent coat outer fabrics shall be packed in bales or cases in conformity with the procedure or as agreed to between the buyer and the seller.

## 6. SAMPLING

### 6.1 Lot

The number of products of the same quality delivered to one buyer against one dispatch note shall constitute a lot.

6.1.1 The conformity of the lot to the requirements of this Draft Tanzania Standard shall be determined based on tests carried out on the samples selected from the lot.

6.1.2 Unless otherwise agreed upon between the buyer and the seller, the number of pieces to be selected at random from a lot shall be in accordance with Table 2.

**Table 2 – Sampling size and permissible number of non-conforming pieces**

Number of pieces in the lot	Sample size (No. of pieces to be selected)	Permissible no. Non-conforming pieces	Sub-sample size (No. of pieces to be selected)
Up to 25	3	0	2
26 to 50	5	0	2
51 to 150	8	0	3
151 to 300	13	1	3
301 to 500	20	1	5
501 to 1000	32	2	5
1000 and above	50	3	8