

# ENV343

## Protective clothing against foul weather

**Reference Number:** ENV 343

**Status:** European Pre standard - Product specification (protection against foul weather)

**Comment:** A pre standard (ENV) has a provisional status for two years; this period of 2 years is intended to gather experience with its content, e.g. the test methods described in it or referred to. After the 2 year trial period (possibly to be prolonged once) the ENV is withdrawn or the acceptance procedure is initiated. An ENV is not necessarily translated into other CEN languages than the original version and can not obtain the status of harmonized standard.

**Scope:** This pre standard specifies the requirements for protective clothing against the effects of foul weather (precipitation, wind, low temperatures > -5 °C) The scope does not cover head, foot or hand protection.

**Comment:** Protective clothing against low temperatures lower than -5 °C is specified in ENV342 - Protective clothing against cold.

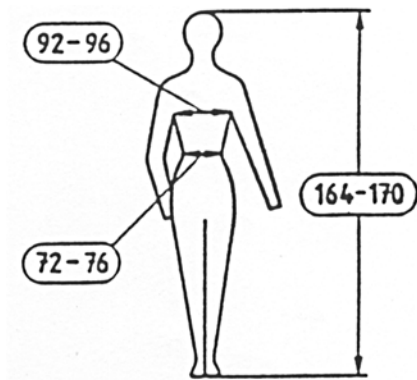
## Requirement

<i>Parameter</i>	<i>Classification</i>
Thermal insulation	$R_{ct}$ : 2 classes: .  1: $0,04 \text{ m}^2\cdot\text{K}/\text{W} \leq R_{ct} < 0,15 \text{ m}^2\cdot\text{K}/\text{W}$  2: $R_{ct} \geq 0,15 \text{ m}^2\cdot\text{K}/\text{W}$  <i>comment: for thermal insulation of clothing, often the unit "clo" is used.</i> <i>1 clo = 0.155 m<sup>2</sup>.K/W</i>

Impermeability to water	<p>Expressed in kPa hydrostatic pressure. The higher the hydrostatic pressure, the better the protection.</p> <p>Three classes:</p> <p>1: &gt; 8 kPa in new condition</p> <p>2: &gt; 8 kPa after treatment *</p> <p>3: &gt; 13 kPa after treatment *</p> <p><i>* The test specimens are washed or dry cleaned, abraded, flexed and exposed to oil before undergoing the hydrostatic pressure test</i></p>
Water vapour permeability	<p>Expressed in m<sup>2</sup>.Pa/W (resistance against evaporation). The lower this resistance, the better the comfort because of less interference with perspiration and less risk of insulation loss by condensation of moisture in the clothing.</p> <p>Three classes:</p> <p>1: R<sub>et</sub> &gt; 150 m<sup>2</sup>Pa/W</p> <p>2: R<sub>et</sub> from 20 to 150 m<sup>2</sup>Pa/W</p> <p>3: R<sub>et</sub> &lt; 20 m<sup>2</sup>Pa/W</p>
Additional requirements	<ul style="list-style-type: none"> <li>- Tensile strength/ elongation, seam strength</li> <li>- Tear strength</li> <li>- Durability:</li> <li>- Colour fastness (light, wetting, rubbing, washing, dry cleaning)</li> <li>- Dimensional stability</li> </ul>

## Size Designation

- A pictogram is used



## Marking

- On a clearly visible and legible label resisting to the foreseeable number of cleaning cycles
- Contents
- The CE marking (as appropriate for PPE category I)
- Cleaning and maintenance symbols
- Name or logo of the manufacturer
- Type of the garment (manufacturer's reference)
- Size designation (pictogram)
- Reference to ENV 343
- Pictogram "umbrella"
- Data on:
  - Class of impermeability to water
  - Water vapour permeability class

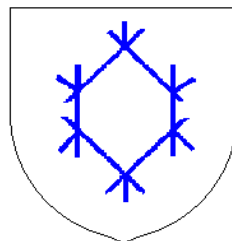
## Information for the user

- To be provided by the manufacturer in at least the official language(s) of the country of use; precise and understandable for the user

- Contents

- Name and address of manufacturer or his authorized representative
- Name and reference of the product
- Reference to the relevant product standard
- Explanation of pictograms and of the performance levels obtained
- Instructions for use, e.g. safety checks before use, specific area of use and limitations of use (time of wear in specific conditions), storage and maintenance instructions, instructions for cleaning and disinfection, etc.
- Packaging instructions for transport

## Pictogram



For the protective clothing:

- X Wp impermeability to water class
- X R<sub>et</sub> water vapour resistance class

For the removable thermal lining:

- X R<sub>et</sub> water vapour resistance class
- X R<sub>ct</sub> thermal insulation