



**SLOVENSKI STANDARD**  
**SIST ETS 300 019-2-1:1999**  
**01-november-1999**

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**Inženiring opreme (EE) - Pogoji okolja in preskusi vplivov okolja za telekomunikacijsko opremo - Del 2-1: Specifikacija preskusov vplivov okolja - Skladiščenje**

Equipment Engineering (EE); Environmental conditions and environmental tests for telecommunications equipment; Part 2-1: Specification of environmental tests; Storage

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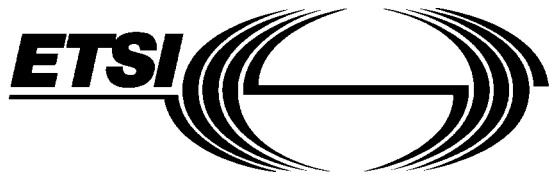
19.040	Preskušanje v zvezi z okoljem	Environmental testing
33.050.01	Telekomunikacijska terminalna oprema na splošno	Telecommunication terminal equipment in general

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Part 2-1: Specification of environmental tests  
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## Contents

Foreword .....	5
1 Scope .....	7
2 Normative references .....	7
3 Environmental test specifications .....	7
3.1 Specification T 1.1: Weatherprotected, partly temperature-controlled storage locations ....	8
3.2 Specification T 1.2: Weatherprotected, not temperature-controlled storage locations .....	11
3.3 Specification T 1.3: Non-weatherprotected storage locations and T 1.3 E: Non- weatherprotected storage locations - extended .....	14
3.4 Notes to tables 1 to 8 .....	20
Annex A (informative): Bibliography .....	21
History .....	22

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## Foreword

This multi-part European Telecommunication Standard (ETS) has been produced by the Equipment Engineering (EE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

ETS 300 019 is concerned with environmental conditions and environmental tests for telecommunications equipment and comprises two main parts, each with subdivisions:

- ETS 300 019-1: "Classification of environmental conditions".

Part 1 specifies different standardised environmental classes covering climatic and biological conditions, chemically and mechanically active substances and mechanical conditions during storage, transportation and in use.

- ETS 300 019-2: "Specification of environmental tests".

Part 2 specifies the recommended test severities and test methods for the different environmental classes.

Part 2-0 forms a general overview of Part 2. This part (Part 2-1), deals with storage locations.

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## 1 Scope

This European Telecommunication Standard (ETS) specifies test severities and methods for verification of the required resistibility of equipment according to the relevant environmental class.

The tests defined in Part 2-1 of this multi-part standard apply to storage of equipment covering the environmental conditions stated in ETS 300 019-1-1 [1].

## 2 Normative references

This ETS incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] ETS 300 019-1-1: "Equipment Engineering (EE); Environmental conditions and environmental tests for telecommunications equipment Part 1-1: Classification of environmental conditions; Storage".
- [2] IEC 68-2: "Environmental testing Part 2: Tests".
- [3] ETS 300 019-2-0: "Equipment Engineering (EE); Environmental conditions and environmental tests for telecommunications equipment Part 2-0: Specification of environmental tests; Introduction".

## 3 Environmental test specifications

The detailed descriptions of the environmental conditions are given in Clauses 4 and 5 of ETS 300 019-1-1 [1].

ETS 300 019-2-0 [3] forms a general overview of Part 2 of this ETS.

If the equipment is normally stored in a packed state then it shall be tested in its packaging.

### 3.1 Specification T 1.1: Weatherprotected, partly temperature-controlled storage locations

This specification applies to partly temperature-controlled storage locations. Humidity is not usually controlled. See tables 1 and 2.

**Table 1: Test specification T 1.1: Weatherprotected, partly temperature-controlled storage locations - climatic tests**

Environmental parameter			Environmental Class 1.1	Environmental test specification T 1.1: Weatherprotected, partly temperature-controlled storage locations				
Type	Parameter	Detail parameter	Characteristic severity	Test severity	Duration	Reference	Method	
Air temperature	low	(°C)	-5	-5	72 h	IEC 68-2-1	Ab: Cold	
	high	(°C)	+45	+45 (1) or +55	72 h	IEC 68-2-2	Bb: Dry heat	
	change	(°C/min)	0,5	none				
Humidity	relative	low	(%)	5	none (6)			
		high	(%) (°C)	95	93 (8) +30	4 d	IEC 68-2-56	Cb: Damp heat steady state
		condensation		yes	none			
	absolute	low	(g/m <sup>3</sup> )	1	none (4) (6)			
		high	(g/m <sup>3</sup> )	29	(7)			
Air	pressure	low	(kPa)	70	none			
		high	(kPa)	106	none			
	speed	(m/s)	1	none				
Water	rain	intensity		no				
		low temperature		no				
	other sources		no					
	icing & frosting		yes	(6)				
Radiation	solar	(W/m <sup>2</sup> )	700	(2)				
	heat	(W/m <sup>2</sup> )	600	(2)				

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**Table 1 (concluded): Test specification T 1.1: Weatherprotected, partly temperature-controlled storage locations - climatic tests**

Environmental parameter			Environmental Class 1.1	Environmental test specification T 1.1: Weatherprotected, partly temperature-controlled storage locations			
Type	Parameter	Detail parameter-	Characteristic severity	Test severity	Duration	Reference	Method
Chemically active substances	sulphur	SO <sub>2</sub> (mg/m <sup>3</sup> )	0,3/1,0 (3)	none (5)			
		H <sub>2</sub> S (mg/m <sup>3</sup> )	0,1/0,5 (3)	none (5)			
	chlorine	salts	sea and road salt mist	none (5)			
		Cl <sub>2</sub> (mg/m <sup>3</sup> )	0,1/0,3 (3)	none (5)			
	nitrogen	HCl (mg/m <sup>3</sup> )	0,1/0,5 (3)	none (5)			
		NO <sub>x</sub> (mg/m <sup>3</sup> )	0,5/1,0 (3)	none (5)			
	hydrogen fluoride HF	NH <sub>3</sub> (mg/m <sup>3</sup> )	1,0/3,0 (3)	none (5)			
		(mg/m <sup>3</sup> )	0,01/0,03 (3)	none (5)			
ozone O <sub>3</sub>	(mg/m <sup>3</sup> )	0,05/0,1 (3)	none (5)				
Mechanically active substances	dust	sedimentation (mg/(m <sup>2</sup> h))	1,5	none (6)			
		suspension (mg/m <sup>3</sup> )	0,2	none (6)			
	sand (mg/m <sup>3</sup> )	30	none (6)				
Flora and Fauna	micro organisms		negligible				
	rodents, insects		negligible				

no = this condition does not occur in this class.  
 none = verification is required only in special cases.

(n) = NOTE (n = number of note), see subclause 3.4.

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