
International Standard



3808/2

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Road vehicles — Unscreened high-tension ignition cables — Part 2 : Cable classes, types, applicable tests and special requirements

iTeh STANDARD PREVIEW

*Véhicules routiers — Câbles d'allumage haute tension non blindés —
Partie 2 : Classes de câble, types, essais applicables et spécifications particulières*

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[ISO 3808-2:1980](https://standards.iteh.ai/catalog/standards/sist/db38ea63-df70-4bb7-b5f3-02e34e39a9be/iso-3808-2-1980)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3808/2 was developed by Technical Committee ISO/TC 22, *Road vehicles*, and was circulated to the member bodies in June 1979.

It has been approved by the member bodies of the following countries :

Australia	Germany, F.R.	Romania
Austria	Italy	Spain
Belgium	Korea, Dem. P. Rep. of	Sweden
Chile	Korea, Rep. of	Switzerland
China	Mexico	United Kingdom
Czechoslovakia	Netherlands	USA
France	Poland	USSR

The member body of the following country expressed disapproval of the document on technical grounds :

Japan

Road vehicles — Unscreened high-tension ignition cables — Part 2 : Cable classes, types, applicable tests and special requirements

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1 Introduction

The present International Standard specifies cable classes, types, applicable tests and special requirements for unscreened high-tension ignition cables.

The general requirements and test methods are specified in ISO 3808/1.

2 Scope and field of application

This International Standard applies to cable classes, types, applicable tests and special requirements for unscreened high-tension ignition cables used in automotive vehicle applications.

3 Reference

ISO 3808-2:1980

ISO 3808/1, *Unscreened high-tension ignition cables — Dimensions, general requirements and test methods.*

4 Applicable tests and special requirements

If tested according to the test methods specified in ISO 3808/1, the cables shall comply with the requirements specified in the following table.

Table

Test	Class				A				B				C				D				E				F				Remarks				
	Type ¹⁾				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
5.1 Test for insulation faults of the total delivery	to be applied				not to be applied				to be applied				not to be applied				to be applied				not to be applied				to be applied				not to be applied				
5.2 30 min test voltage and breakdown voltage	to be applied				to be applied				to be applied				to be applied				to be applied				to be applied				to be applied				to be applied				
5.3 Capacity																																	
	cable Ø 5 mm (23 ± 2) °C (70 ± 2) °C																																
	cable Ø 7 mm (23 ± 2) °C (70 ± 2) °C																																
	cable Ø 8 mm (23 ± 2) °C (70 ± 2) °C																																
5.4 Resistance to corona effect																																	
	cable Ø 5 mm				12 kV (r.m.s.), 50 or 60 Hz																												
	cable Ø 7 mm				15 kV (r.m.s.), 50 or 60 Hz																												
	cable Ø 8 mm				18 kV (r.m.s.), 50 or 60 Hz																												
5.5 Pressure test at high temperature																																	
	Test temperature				(70 ± 2) °C				(105 ± 2) °C				(120 ± 2) °C				(180 ± 2) °C				(220 ± 3) °C				(250 ± 3) °C								
5.6 Thermal overload test																																	
	Test temperature				(105 ± 2) °C				(120 ± 2) °C				(155 ± 2) °C				(180 ± 2) °C				(220 ± 3) °C				(250 ± 3) °C								
	Maximum allowable change of resistance				- +50% -30%				- +50% -30%				- +50% -30%				- +50% -30%				- +50% -30%				- +50% -30%								
5.7 Shrinkage by heat																																	
	Test temperature				(155 ± 2) °C				(155 ± 2) °C				(155 ± 2) °C				(155 ± 2) °C				(155 ± 2) °C				(155 ± 2) °C								
	Maximum length shrinkage				2 %				2 %				2 %				2 %				2 %				2 %								
5.8 Resistance to flame propagation																																	
	Exposure time				30 s				30 s				15 s				15 s				15 s				15 s								
	Extinction time				30 s				30 s				30 s				70 s				70 s				70 s								
5.9 Flexibility at low temperature																																	
	Test temperature				(-20 ± 3) °C				(-20 ± 3) °C				(-30 ± 3) °C				(-30 ± 3) °C				(-40 ± 3) °C				(-50 ± 3) °C								

1) See below the end of the table.

5.10 Mechanical tensile test	for cable ϕ 5 mm	not to be applied	180 N	not to be applied	180 N	not to be applied	180 N	not to be applied	180 N	not to be applied	180 N	not to be applied	180 N	not to be applied	180 N	not to be applied	180 N
	for cable ϕ 7 mm	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N
	for cable ϕ 8 mm	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N	not to be applied	250 N
	Maximum allowable change of resistance	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%	0 to +30%
weight to be applied for interruption test	for cable ϕ 5 mm	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	for cable ϕ 7 mm	—	250 N	—	—	—	—	—	—	—	—	—	—	—	—	—	250 N
	for cable ϕ 8 mm	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	250 N
5.11 Stripping of insulation see ISO 3808/1																	
5.12 Resistance to oil	Maximum alteration	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 4 % - 1 %	+ 10 %
5.13 Resistance to fuel	Maximum alteration	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	6 %	15 %
5.14 Accelerated life test		to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied	to be applied
5.14.2.1 Resistance to salt water see ISO 3808/1																	
5.14.2.2 Resistance to oil see ISO 3808/1																	
5.14.2.3 Resistance to fuel see ISO 3808/1																	
5.14.2.4 Heat ageing test	Test temperature	(90 \pm 2) °C	(105 \pm 2) °C	(120 \pm 2) °C	(155 \pm 2) °C	(180 \pm 2) °C	(220 \pm 3) °C	(90 \pm 2) °C	(105 \pm 2) °C	(120 \pm 2) °C	(155 \pm 2) °C	(180 \pm 2) °C	(220 \pm 3) °C	(90 \pm 2) °C	(105 \pm 2) °C	(120 \pm 2) °C	(155 \pm 2) °C
5.14.2.5 Low temperature test	Test temperature	(- 10 \pm 3) °C	(- 15 \pm 3) °C	(- 20 \pm 3) °C	(- 20 \pm 3) °C	(- 20 \pm 3) °C	(- 20 \pm 3) °C	(- 10 \pm 3) °C	(- 15 \pm 3) °C	(- 20 \pm 3) °C	(- 20 \pm 3) °C	(- 20 \pm 3) °C	(- 20 \pm 3) °C	(- 10 \pm 3) °C	(- 15 \pm 3) °C	(- 20 \pm 3) °C	(- 20 \pm 3) °C

Types 1 : Cables with copper conductor

Types 2 : Cables with steel conductor

Types 3 : Resistive cables

Types 4 : Reactive cables

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