UDC 678.743.033:621.315

JIS

JAPANESE INDUSTRIAL STANDARD

Plasticized Polyvinyl Chloride Compounds

JIS K 6723 —1983

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Plasticized Polyvinyl Chloride Compounds K 6723-1983

1. Scope

This Japanese Industrial Standard specifies the plasticized polyvinyl chloride compounds, hereinafter referred to as the "compounds", used for the polyvinyl chloride insulated wire, polyvinyl chloride code and cable sheath for 600 V.

Remark: The units and the numerical values given in { } in this standard are in accordance with the International System of Units (SI), and are appended for reference.

2. Classification

The classification of compounds shall be as shown in Table 1.

Table 1. Classification

Class		Remark
Class 1	No. 1	For general insulation
	No. 2	For general code
	No. 3	For general sheath
Class 2	No. 1	For heat-proof insulation
	No. 2	For heat-proof code
	No. 3	For heat-proof sheath

3. Quality

The compounds shall be tested in accordance with 6. and shall conform to the requirements specified in Table 2.

Applicable Standards and Reference Standard: See page 11.

Table 2. Quality

Test item		Class	Class 1			Class 2			Applicable item
			No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	
Tensile test		Tensile strength kgf/mm² {N/mm²}	Not less than 1.5 {14.7}	Not less than 1.3 {12.7}	Not less than 1.2 {11.8}	Not less than 1.5 {14.7}	Not less than 1.3 {12.7}	Not less than 1.2 {11.8}	6.3
		Elongation %	Not less than 180	Not less than 180	Not less than 200	Not less than 180	Not less than 180	Not less than 200	
Tensile test after heating	100 ± 2 °C	Retention of tensile strength %	Not less than 90	Not less than 90	Not less than 90	–	–	–	6.4
		Retention of elongation %	Not less than 70	Not less than 70	Not less than 70	–	–	–	
	120 ± 3 °C	Retention of tensile strength %	–	–	–	Not less than 90	Not less than 90	Not less than 90	
		Retention of elongation %	–	–	–	Not less than 80	Not less than 75	Not less than 80	
Heat deformation rate		%	Not more than 40	Not more than 40	Not more than 40	Not more than 25	Not more than 25	Not more than 25	6.5
Low temperature resistance			No breakage at a temperature in Table 4						6.6
Heat stability		h	Not less than 2	Not less than 2	Not less than 2	Not less than 2	Not less than 2	Not less than 2	6.7
Volume resistivity	30 ± 0.5 °C	Ωcm {MΩm}	Not less than 5×10^{13} {5×10^{5}}	Not less than 1×10^{12} {1×10^{4}}	–	Not less than 5×10^{13} {5×10^{5}}	Not less than 1×10^{12} {1×10^{4}}	–	6.8
	60 ± 0.5 °C	Ωcm {MΩm}	Not less than 5×10^{11} {5×10^{3}}	Not less than 1×10^{10} {1×10^{2}}	–	–	–	–	
	75 ± 0.5 °C	Ωcm {MΩm}	–	–	–	Not less than 2×10^{11} {2×10^{3}}	Not less than 5×10^{9} {5×10^{1}}	–	
Oil resistance		Retention of tensile strength %	Not less than 85	–	Not less than 85	Not less than 85	–	Not less than 85	6.9
		Retention of elongation %	Not less than 80	–	Not less than 75	Not less than 85	–	Not less than 75	

4. Colour

The colour of compounds shall be as agreed between the parties concerned.

5. Material and Process Method

The compounds shall be the material of granular form or powder form processed by mixing necessary plasticizer, stabilizer, lubricant, filler, coloring agent, etc., with polyvinyl chloride as main material.

6. Test Methods

6.1 Method for Sampling At random take one sample for each lot of compounds of the quality considerable same and take it as test sample. In this case, take the quantity required for carrying out each test in 6.3 to 6.9 as one sample.

6.2 Preparation, Annealing and Conditioning of Test Piece The preparation, annealing and conditioning of test piece shall be in accordance with the methods specified as follows. However, when the test is carried out under conditions other than the following methods according to special agreements between the parties concerned, clearly record the conditions on the test results.