

II Tests

Table 7: Test Requirements

No.	Tests	Requirements acc. to	Test method acc. to	Scope of test *)
1. Electrical Properties				
1.1	Conductor resistance	IEC 60228	IEC 60502-1	R
1.2	Voltage test	IEC 60502-1	IEC 60502-1	R
1.3	Insulation resistance	IEC 60502-1	IEC 60502-1	T
1.4	Voltage test for 4 h	IEC 60502-1	IEC 60502-1	T
2. Dimensions				
2.1	Conductor examination	IEC 60228	IEC 60502-1	S
2.2	Measurement of thickness of insulation and of non-metallic sheath (excluding inner extruded coverings).	IEC 60502-1	IEC 60811-1-1	S
2.3	Measurement of armour wires and tapes	IEC 60502-1	IEC 60502-1	S
2.4	Measurement of external diameter	---	IEC 60811-1-1	S
3. Mechanical Properties and Thermal Behaviour				
3.1	Hot set test for XLPE insulations and elastomeric sheaths.	IEC 60502-1	IEC 60811-2-1	S
3.2	Mechanical and thermal properties of insulations and sheaths.	IEC 60502-1	IEC 60811	T
4. Cable				
4.1	Flame Retardancy**)	IEC 60332-1	IEC 60332-1	T
4.2	Flame Propagation**)	IEC 60332-3	IEC 60332-3	T
4.3	Fire Resistance**)	IEC 60331-21	IEC 60331-21	T
4.4	Smoke Density**)	IEC 61034-1 and 2	IEC 61034-1 and 2	T
4.5	Amount of halogen gas acid**)	data sheet	IEC 60754-1	T
4.6	Degree of acidity of gases**)	IEC 60754-2	IEC 60754-2	T
4.7	Limiting Oxygen Index (LOI)**) (only for outer sheath material)	data sheet	IEC 60332-3 ann. B	T
4.8	Temperature Index (TI)**) (only for outer sheath material)	data sheet	ASTM-D-2863	T

***) Routine tests (R)**

Tests made by the manufacturer on each manufactured length of cable to check that each length meets the specified requirements.

***) Sample tests (S)**

Tests made by the manufacturer on samples or completed cable or components taken from a completed cable, at a specified frequency, so as to verify that the finished product meets the specified requirements.

***) Type tests (T)**

Tests made before supplying, on a general commercial basis, a type of cable covered by this standard, in order to demonstrate satisfactory performance characteristics to meet the intended application. These tests are of such a nature that, after they have been made, they need not to be repeated, unless changes are made in the cable materials or design or manufacturing process which might change the performance characteristics.

***) Tests are not applicable to all cable types.