CLAIMS

1. Fire protection arrangement (20) for low-voltage or medium-voltage instrumentation cables disposed over a core (10) of a cable, characterized in that it comprises a first solid layer (21) of a ceramifiable fireproof thermoplastic compound which is extruded with a constant thickness over the cable core (10), a second layer (22) disposed over the first layer (21) that acts as a fire barrier, and which is adapted to allow the expansion of the ceramifiable compound and retaining same on the cable core (10), wherein the second layer (22) is selected from: a fibre glass mesh tape, with mesh size less than 16 mm^2 disposed helicoidally over the first layer (21) with a superimposition or overlapping that varies between 5% and 30%, or a fibre glass or metal wire, with minimum diameter of 0.5 mm placed helicoidally with a separation between the wires of between 0.5 and 5 mm, and a third solid layer (23) of plastic material which is extruded over the second layer (22) which is adapted to give mechanical protection to the cable and act as fire barrier without actively protecting against fire generated by hydrocarbons, so that with said arrangement (20) the cable is adapted to resist in active operation a period of at least 60 minutes at temperatures of 1100ºC.

2. Fire protection arrangement (20) according to claim 1, wherein the ceramifiable compound has a polymer matrix of an ethylene copolymer, with inorganic filling materials.

3. Fire protection arrangement (20) according to any claims 1 or 2, wherein the expansion of the ceramifiable compound starts at a temperature of 190ºC and may reach 200% of its volume in ceramic state.

4. Fire protection arrangement (20) according to any claims 1 to 3, wherein the ceramifiable compound has low smoke emission during combustion and does not produce corrosive gases during burning.

5. Fire protection arrangement (20) according to claim 1, wherein the metal wire is defined by a metal braid, with a mesh orifice size less than 16 mm^2.

6. Fire protection arrangement (20) according to claim 1, wherein the second layer (22) is an aluminium or steel wire, with a minimum diameter of 0.5mm, placed helicoidally with a separation between the wires of between 0.5 and 5 mm.

7. Fire protection arrangement (20) according to claim 1, wherein the material of the third

layer (23) is a compound with low smoke emission and halogen-free.

8. Fire protection arrangement (20) according to claim 1, wherein the material of the third layer (23) is a halogen compound.

9. Fire protection arrangement (20) according to claim 1, wherein said arrangement is adapted so that, when the cable is exposed to fire by hydrocarbons reaching temperature values over 1100ºC, the third layer (23) deteriorates, and the fireproof compound that forms the first layer (21) changes state transforming into a ceramic material, increasing its volume by up to 200%, causing during said transformation its exit through a plurality of orifices (25) present in the second layer (22), with the ceramified compound being retained over the core (10) so that it insulates and protects said core (10) from fire.

10. Low-voltage or medium-voltage instrumentation cable, comprising a fire protection arrangement defined in any of claims 1 to 9.

11. Use of a cable defined according to claim 10, in installations for instrumentation, communication, control systems, power systems, emergency and alarm systems, where said installations are located in areas where resistance to fire generated by hydrocarbons is vital.