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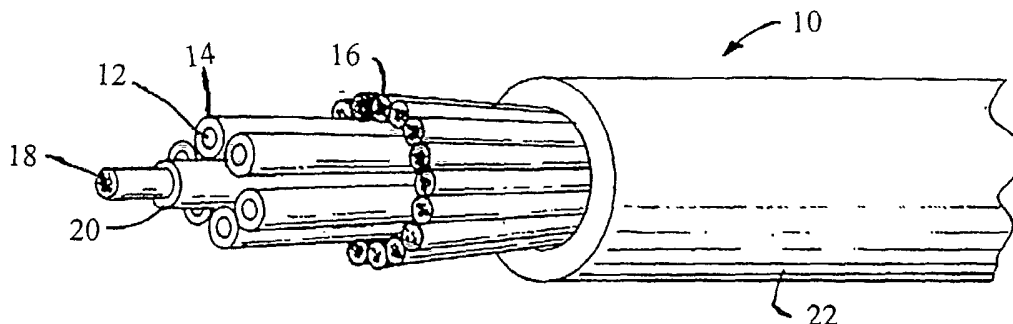
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(54) Title: COMPACT, HYBRID FIBER REINFORCED RODS FOR OPTICAL CABLE REINFORCEMENTS AND METHOD FOR MAKING SAME



(57) Abstract: Fiber reinforcement rods (18) having a combination of reinforcing fiber members (16) coated with a UV curable vinyl ester resin material (30) and a polybutylene terephthalate/polyether glycol or ethylene acrylic acid topcoat layer (32). The reinforcing fiber members may be E-type glass fiber members (24), S-type glass fiber members (26), a combination thereof, or E-type glass fiber members and/or S-type glass fiber members with high strength synthetic strands of poly(p-phenylene 2,6 benzoisoxazole) fiber members (28). The topcoat layer provides enhanced properties of specific adhesion, enhanced environmental protection, resistance to surface fiber breakage, and to some degree resistance from delamination. The fiber reinforcement rod permits higher translation of strain energy due to reduced defects and residual stresses to allow a tougher and more resilient cured composite rod to be used. By varying the types of fibers and thickness of the UV coating or topcoat layer, a fiberoptic cable reinforcement rod member that is capable of having a wide variety of tensile strengths and moduli is realized.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 1 037 082 A (CIT ALCATEL) 20 September 2000 (2000-09-20) abstract; figure 1 column 1, line 22 - line 35 paragraph '0014!	1-22
Y	US 5 390 273 A (SMITH JOHN C ET AL) 14 February 1995 (1995-02-14) abstract; figures 1,2 column 3, line 50 -column 4, line 2	1-22
A	EP 0 564 130 A (PIRELLI CABLE CORP) 6 October 1993 (1993-10-06) abstract; figures 1,2 -/--	1-22

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 479 984 A (LEVY NICHAS ET AL) 30 October 1984 (1984-10-30) abstract; figure 1 column 6, line 64 -column 7, line 9 -----	1-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

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