Claim No: HP 2018-000011

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS
INTELLECTUAL PROPERTY LIST (ChD)
PATENTS COURT

EMTELLE UK LIMITED

Claimant

- and -

(1) HEXATRONIC UK LIMITED
(2) HEXATRONIC CABLES & INTERCONNECT SYSTEMS AB
(3) HEXATRONIC GROUP AB

Defendants

ANNEX 2 TO
909 STATEMENT OF GROUNDS

DESCRIPTION

Description pages 12, 14 as proposed to be amended (redline version)

through the tube 104 it is then inserted into a haul off 106, which pulls the cable at a constant speed of 10 metres per minute. The tube 104 is clamped at both ends by clamps 107, and as the cable is pulled through the tube 104, the friction of the cable on the tube imposes a turning moment on the wheel 105 and rotates a lever 108 which imposes a load on a mass balance 109.

The load on the mass balance 109 was measured for both the invention and the prior art and the coefficient of friction calculated using the formula :

Coefficient of friction is given by

$$\mu = \frac{1}{\theta} \ln\left[\frac{FL}{Tr} + 1\right]$$

Where

μ	total wrap angle of tube (rads)
F	force recorded at mass balance (N)
L	Moment arm length of force F (m)
T	Weight lifted by fibre (N)
r	Bend radius of primary tube (m)

The cable of the invention had a coefficient of friction of 0.27 whilst the cable of the prior art had a coefficient of friction of 0.21. The friction characteristics of the invention are therefore inferior compared to those of the prior art.

Referring now to Figures 4a and 4b, the blowing performance of the cable, manufactured according to the above process is assessed by measuring the speed of installation and the total distance installed of the fibre unit into a suitable duct. The comparison involves an industry standard test in which

Referring now to Figure 5, the signal loss over a wide temperature range associated with cables manufactured according to the above process is shown. The different curves show signal attenuation in the individual fibres 2 of the cable of Figure 1B. It can be seen that the cable 1 can withstand exposure to a wide temperature range. This is a surprising result. Prior art cables as described in EP0157610 incorporating polyethylene outer layers display poor optical performance below approximately ~~B20 C~~ -20°C. This is usually attributed to a change of phase in polyethylene at around this temperature and for this reason polyethylene is not normally selected for the tight jacketing of fibre optic elements.

It will be appreciated by persons skilled in the art that the above embodiments have been described by way of example only, and not in any limitative sense, and that various alterations and modifications are possible with departure from the scope of the invention as defined by the appended claims. For example, as an alternative to, or in addition to, the friction reducing materials described in the above embodiments, erucamide and/or oleamide materials may be used as slip agents. ~~Furthermore, although the~~ The cable assembly of the present invention comprises an inner and an outer layer~~, however it will be obvious to those skilled in the art that it might be constructed from more than two layers~~.