

Heat Stripping of Fibre

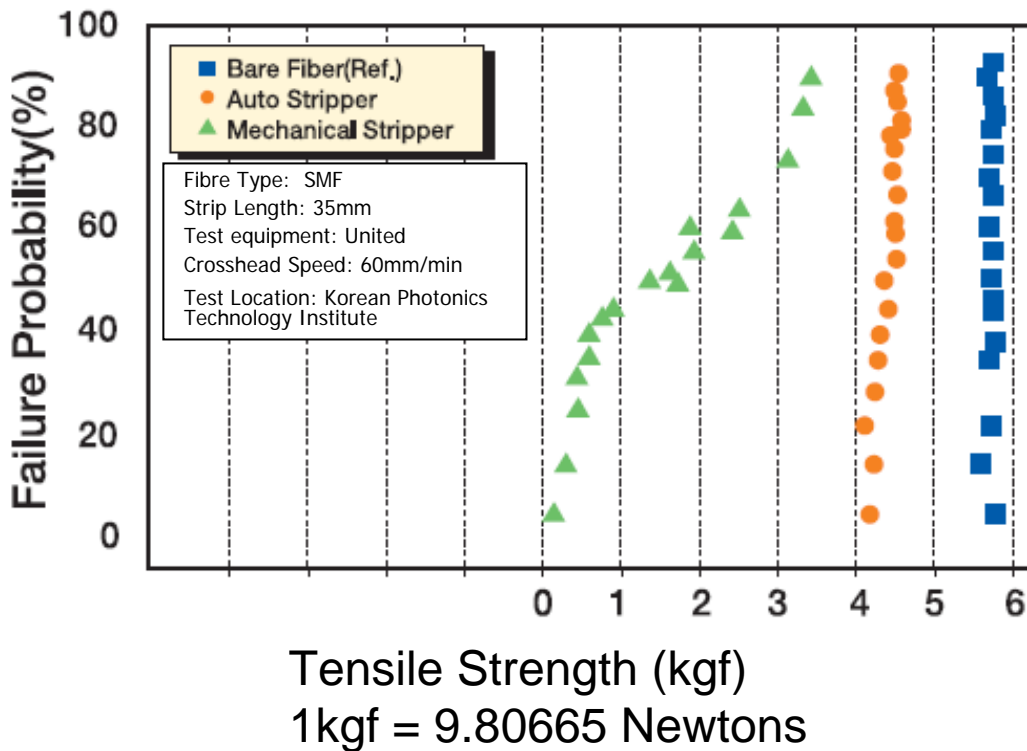
Traditional methods of mechanical stripping of optical fibre can cause a deterioration in the strength of the optical fibre which can lead to failure in time. This effect can be minimised by using an appropriate heat stripping tool. As can be seen from the graph below:

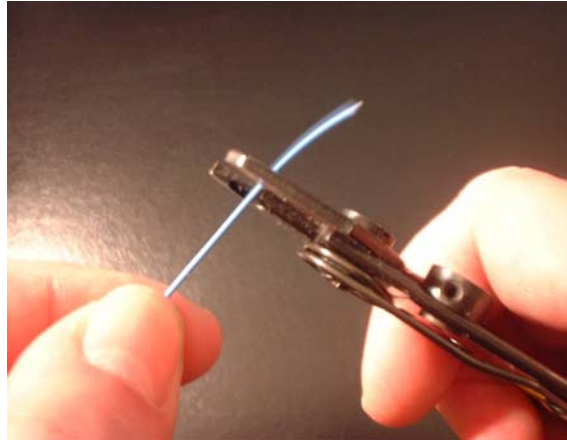
Bare fibre has a breaking strength of 5.8kgf (56 Newtons)

Heat stripped fibre has a breaking strength of between 4.2 and 4.5kgf (41 to 44 Newtons)

Mechanically stripped fibre has a breaking strength of between 0.1 and 3.4kgf (1 to 33 Newtons). Although 60% of fibres stripped in this way will fail at under 20 Newtons

Tensile Strength Test Graph





The traditional mechanical stripping methods use hand tools and so stripping performance is operator dependent. An even strip cannot be guaranteed, the angle at which the tool is clamped on the fibre can vary dramatically as can the force applied.

In conclusion, traditional mechanical stripping is unpredictable and can lead to weakened fibres which is not acceptable in applications where high strength splicing is required such as in submarine cables or in splicing sensors or in aerospace environments. A heat stripping method gives improved repeatability with tensile strength levels above 73% of the strength of unstripped fibre.



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