Micro Cable - MUC Peeling and fixation

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1 Introduction

Within the ACE concept, TKF developed a full range of fibre optic cables to fulfil its customer requirements.
We offer a full range of fibre counts from 1 fibre up to 912 fibres per cable.
G.657.A1 bend insensitive fibres are standard for the full range of SM cables.
Very low bend insensitive fibres (G.657.A2) complete the FTTx fibre portfolio.

Features and applications:
Miniaturized cable solutions from 1 up to 288 fibres
Blowable cable solutions from low count up to very high fibre counts
Direct burial cable solutions for backbones and access networks
Aerial applications from short distance up to very long pole distances
Flame retardant and LSZH available

Within the ACE concept we offer mini and micro optical fibre cables specially designed for the access market.
Mini and micro cables are compact (have the smallest possible diameter), light-weighted and their outer sheath has excellent low-friction properties, resulting in optimal blowing performances in micro duct systems.

This guideline contains the instruction for peeling and fixation of Micro unitube cable (MUC).

1.1 Document history

Version	Date	Major changes
01	May 2011	First release
02	June 2011	Textual changes Extension chapter 3.1
03	September 2011	Added CFU
04	November 2011	Fixation CFU in splice tray added
06	September 2013	Deleted CFU type Fixation MUC in splice tray added
07	Oktober 2014	MUC 2.0mm added
08	January 2015	MUC 2.2mm added
09	Oktober 2017	Changed peeling instruction, added instruction with Aramid yarns

1.2 References

References mentioned in this document refer to the actual versions of below mentioned documents:

Document number	Title	Author
Link to ACE-fibreoptic.com	Datasheet MUC cable Nx SM G.657A (1xN)	TKF

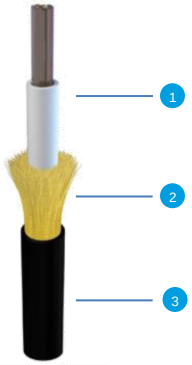
2 General

2.1 Product

An example of a MUC cable is shown here, showing clearly the construction:

1. Fibres in a tube*
2. Aramid layer
3. Outer sheath

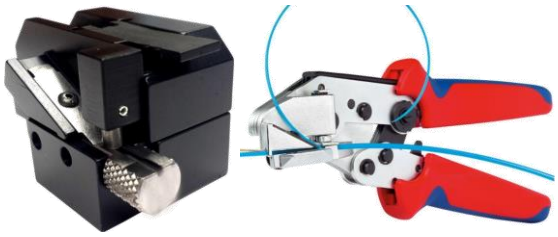
* The number of fibres is differing per article-number



2.2 Tools

Cable slit and ring tool

Mid-span access tool



Aramid scissors

Knife

3 Instruction

3.1 Caution

Beware of little pieces of optical fibre that could get loose when breaking the glass fibres.
Never look directly into the fibre, the laser at the other end of the cable might still be switched on and cause severe eye damage.

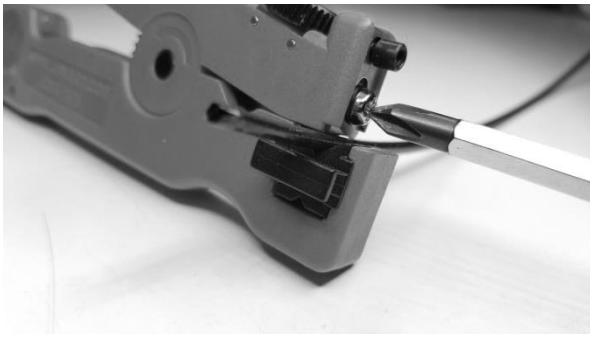
3.2 Stripping of Muc cable

3.2.1 Cable end

The MUC cable can be stripped using and Cable slit and ring tool or the Aramid yarn under the outer sheath.

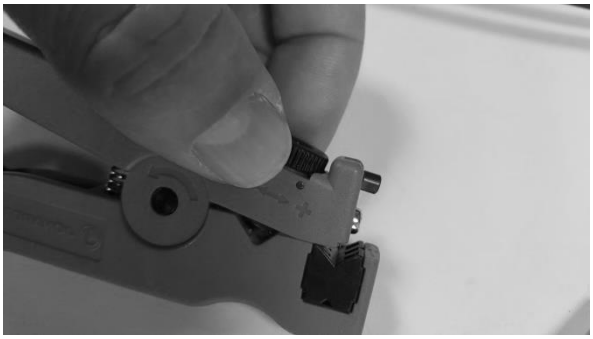
Cable slit and ring tool
Adjust the Cable slit and ring tool. The outer sheath should be cut without affecting the fibres.

Remark:
Test the adjustment on the end or a non-used length of cable.

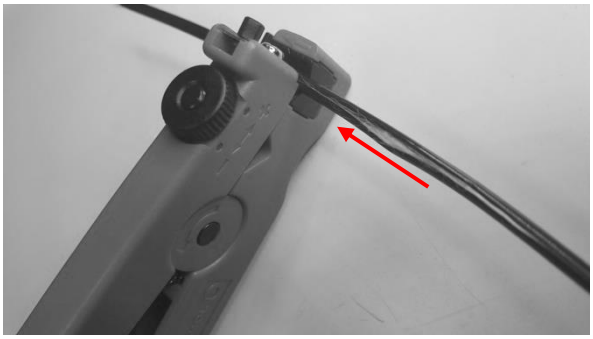


Adjust the Cable slit and ring tool. The tube should be cut without affecting the fibres.

Remark:
Test the adjustment on the end or a non-used length of cable.



Strip the cable over the desired length.



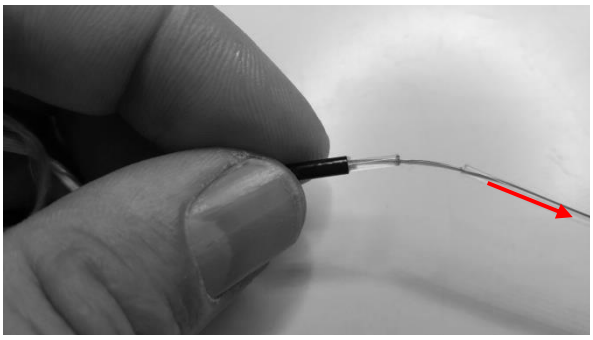
Cut the outer sheath and Aramid yarns using scissors.

Cut the tube to a max length of 1cm from outer sheath using the Cable slit and ring tool.

Remark:
When a longer tube length is necessary, use a suitable tube to protect the fibres.

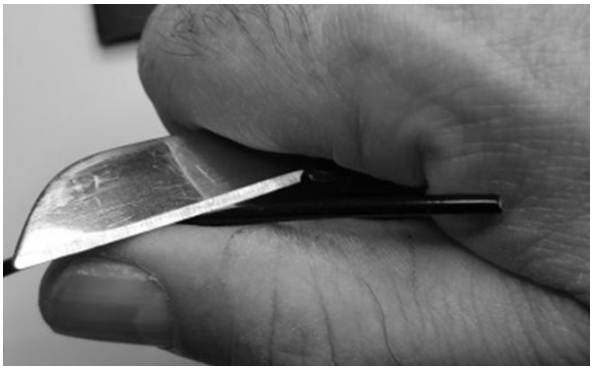
Remove the tube.

Clean the optical fibres (remove jelly) using a tissue.

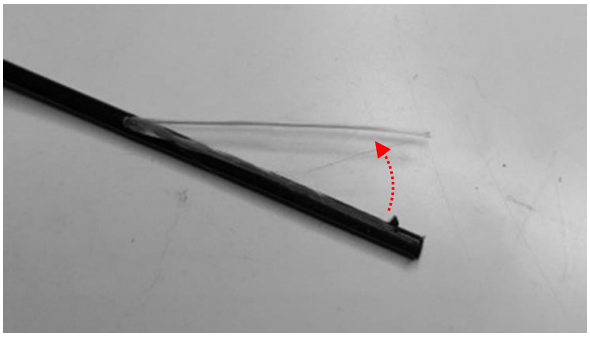


Aramid yarn

Remove about 10cm of the outer sheath using the knife.

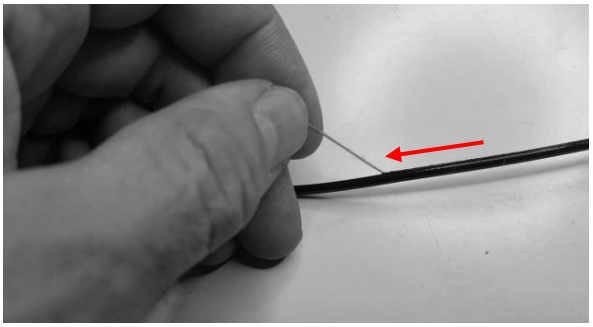


Pull a string (approx. 10% of the Aramid yarns) from the Aramid layer. This string will be used as a ripcord.



Pull the ripcord trough the outer sheath.

Remark:
Do not bend or knick the cable when pulling the ripcord.



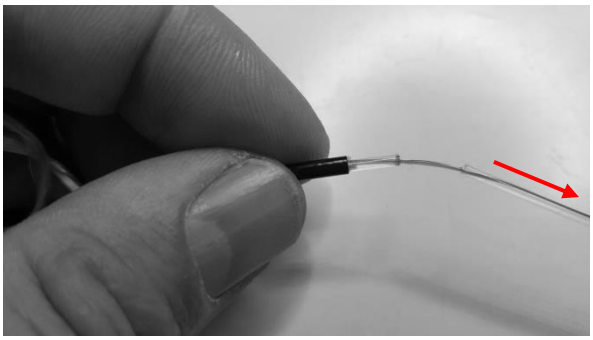
Cut the outer sheath and Aramid yarns using scissors.

Cut the tube to a max length of 1cm from outer sheath using the Cable slit and ring tool.

Remark:
Use a suitable tube to protect the fibres when a longer tube length is necessary.

Remove the tube.

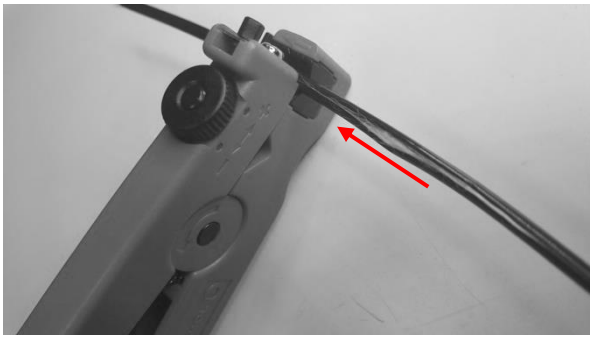
Clean the optical fibres (remove jelly) using a tissue.



3.2.2 Window cut

Follow the instruction as described in chapter 3.2.1 Cable end to strip the outer sheath.

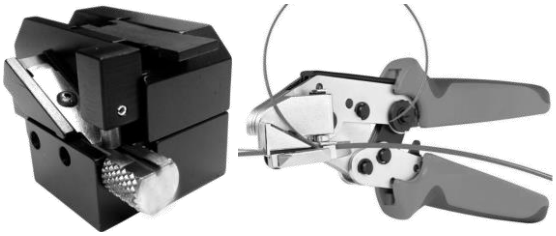
Strip the cable over the desired length.



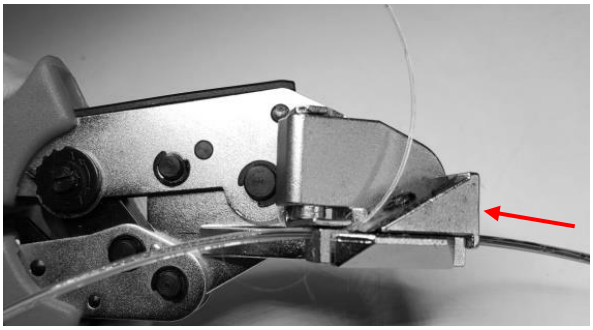
Cut the outer sheath and Aramid yarns on both sides using scissors.

Check the correct insert or adjust the Mid-span access tool. The fibres should not be touched or damaged.

Remark:
Test the insert on a unused length of the cable before use.

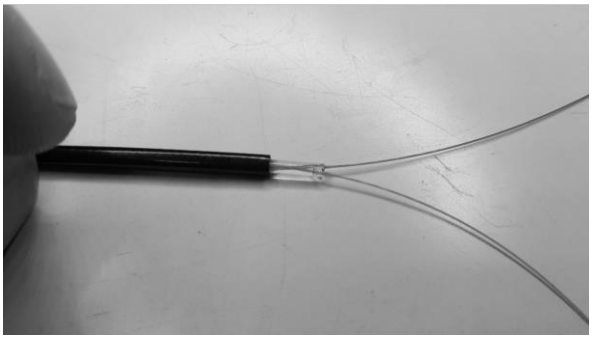


Strip the tube up using the Mid-span access tool.



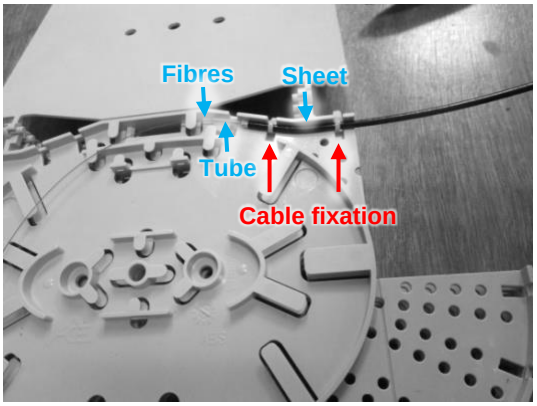
Cut the tube to a max length of 1cm from outer sheath.

Clean the optical fibres (remove jelly) using a tissue.



3.3 Fixation of MUC cable

The MUC cable should be mounted direct into the splice tray and fastened over the sheath.



Store the over length of the MUC cable.

Remark:
To prevent kinking of cable, the sheath of the MUC cable must not be stripped.