



## Best Practice for Cleaning FTTA - AARC/ODC/RDC Connectors



# Connector Cleaning and Sources of Contamination

## REASON FOR CLEANING CONNECTORS:

- Mating dirty connectors will cause scratching and pitting ruining termini end faces
- Cleaning both end of mated connector pair before mating will extend service life of assemblies and ensure reliability of signals

## COMMON SOURCES OF CONTAMINATION:

- Wear debris generated from moving parts when mating connectors
- Electrostatic charge caused by contact friction from dry cleaning processes
- Cross contaminated alcohol that has been diluted from atmospheric moisture, lint from paper based wipes, and broken cellular structure of foam tipped sticks

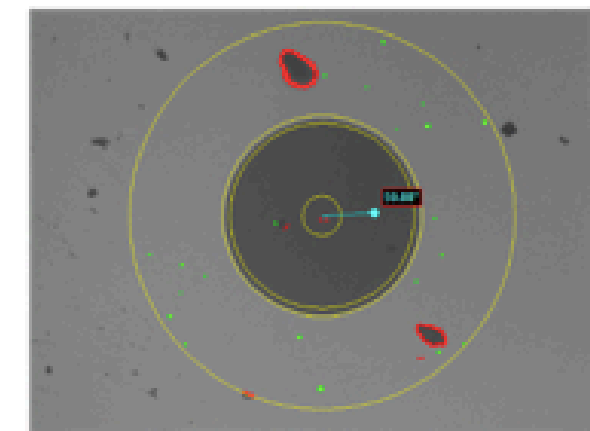
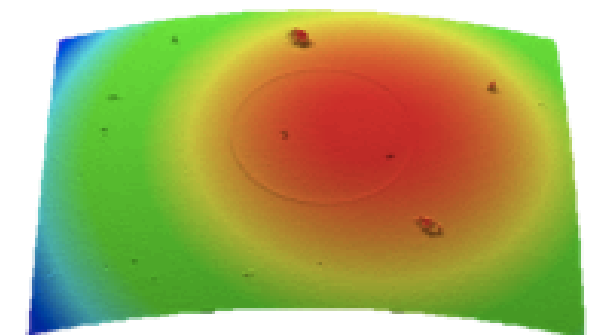


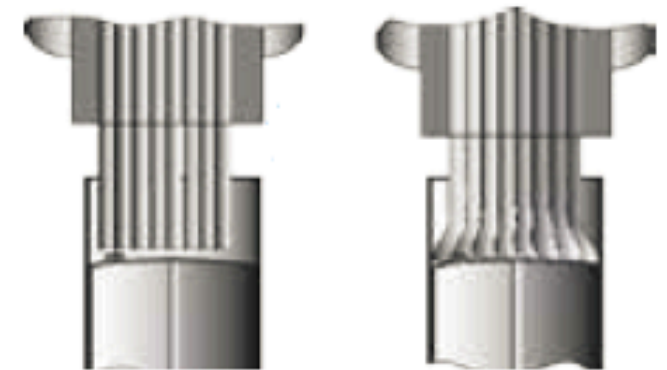
Image of dust contaminated end face courtesy of Promet Optics



# Case for Using Sticks and Cleaning Fluid

## 1. CLEANING PERFORMANCE:

- The use of cleaning fluid breaks up heavy oils and residue contamination
- The strands in the cleaning tip create a capillary action which wicks up contamination from the end face



## 2. ELMINATION OF ELECTROSTATIC CHARGE EFFECT:

- The cleaning fluid becomes the dissipative medium that eliminates the electrostatic charge on the ferrule and connector housing
- Cleaning with a moisten cleaning stick does not create an electrostatic charge during the wiping process
- The cleaning stick's tip makes contact with the socket wall during the rotation process which dissipates the electrostatic charge
- Using the cleaning fluid will ensure compliance to IEC 8497-1 Sect 10



# Case for Using Sticks and Cleaning Fluid

## 3. LARGEST EFFECTIVE CLEANING REGION:

- The cleaning stick's tip diameter is able to reach contamination that resides in the outer regions of the ferrule end face
- Removing contamination from end face periphery significantly reduces particle migration

## LIMITATIONS OF ALL MECHNICAL CLEANERS:

- Dry wiping causes an electrostatic charge from the contract friction between the cleaner's cleaning strand flowing across the ferrule end face
- Wet-dry cleaning is ineffective because the cleaning strand wicks up on both sides of the cleaning strand requiring multiple engages
- The cleaning tip outer diameter is reduced to prevent contact with socket walls that would interfere with the cleaning strand flow
- The effective region is  $< \text{Ø}0.6\text{mm}$  for  $\text{Ø}1.25\text{mm}$  ferrule





# Recommended Sticklers Products



**MCC P/N: S12**  
**NSN 6070-01-553-2267**

9mm length cleaning tip for the  
Ø1.25mm socket terminus



**MCC P/N: P25**  
**NSN 6070-01-553-2258**

Recessed cleaning tip in handle  
enable cleaning of the periphery  
of Ø1.25mm pin terminus



**MCC P/N: POC03M**  
**NSN 6850-01-592-9391**

Non flammable, non  
aerosol precision cleaning  
fluid in hermitically sealed  
3oz air ship safe steel can





# Recommended Cleaning Process

## Socket Terminus



### APPLICABLE PRODUCTS:

- MCC P/N POC03M  
*Fiber Optic Splice & Connector Cleaner* cleaning fluid
- MCC P/N S12  
*1.25mm CLEANSTIXX* cleaning sticks



### FOR BEST RESULTS:

- Moisten stick taking care not to over saturate
- Angle cleaning fluid can and gently engage pump
- Rotate stick in same direction 6X to 8X in same direction
- Use stick once to avoid accidental cross contamination





# Recommended Cleaning Process

## Pin Terminus



### APPLICABLE PRODUCTS:

- MCC P/N POC03M  
*Fiber Optic Splice & Connector Cleaner* cleaning fluid
- MCC P/N P25  
*Pin CLEANSTIXX* cleaning sticks





### FOR BEST RESULTS:

- Moisten stick taking care not to over saturate
- Angle cleaning fluid can and gently engage pump
- Rotate stick in same direction 6X to 8X in same direction
- Use stick once to avoid accidental cross contamination







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