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Data Summary:
F-Connector Loosening Torque Evaluation
With Poly/Chem Shrink Applied

Prepared for: Contech Systems, Inc.

Manufacturer	Product	Model(s)
PCT	Standard Series 6 Connector	PCT-DRS-6
Arris	Standard Series 6 Connector	Digicon 6
Gilbert	Standard Series 6 Connector	GF-UE-6
PPC	Standard Series 6 Connector	CMP 6
Thomas & Betts	Standard Series 6 Connector	SNS1P6

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1. Scope

The purpose of this document is to characterize the performance of a unit under test (UUT). The UUT's were evaluated for loosening torque. The data generated by this test was to be compared with data provided for a similar test without Poly/Chem Shrink applied.

2. Explanation of Data

The UUT's were evaluated for loosening torque in accordance with Reference [1]. Each UUT was torqued to 40 in-lbs onto an SCTE compliant F-port. The assemblies were then temperature cycled, w/humidity, per the following schedule: 14 twelve hour temperature cycles from +20°C to +60°C to -40°C and return to +20°C with 95% humidity at the high temperature point. Temperature extremes were maintained for 3 hours. The amount of torque required to break the connector nuts loose was then measured and recorded.

List of all associated parts tested during the evaluation:

Connectors and Quantities Tested		
Manufacturer	Part #	UUT Qty
PCT	PCT-DRS-6	5
Arris	Digicon 6	5
Gilbert	GF-UE-6	5
PPC	CMP 6	5
Thomas & Betts	SNS1P6	5



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PCT, PCT-DRS-6, Loosening Torque [in – lbs]		
UUT #	Without Shrink	With Poly/Chem Shrink
1		33.0
2		33.0
3		33.2
4		33.1
5		33.2
Average	13.4	33.1

Arris, Digicon 6, Loosening Torque [in – lbs]		
UUT #	Without Shrink	With Poly/Chem Shrink
1		32.1
2		32.0
3		32.3
4		31.9
5		32.0
Average	11.0	32.1

Gilbert, GF-UE-6, Loosening Torque [in – lbs]		
UUT #	Without Shrink	With Poly/Chem Shrink
1		33.1
2		33.0
3		33.2
4		33.2
5		33.1
Average	13.2	33.1

PPC, CMP 6, Loosening Torque [in – lbs]		
UUT #	Without Shrink	With Poly/Chem Shrink
1		33.3
2		33.0
3		33.1
4		33.2
5		33.0
Average	14.0	33.1

Thomas & Betts, SNS1P6, Loosening Torque [in – lbs]		
UUT #	Without Shrink	With Poly/Chem Shrink
1		33.6
2		33.5
3		33.5
4		33.4
5		33.5
Average	17.2	33.5



3. Reference Documents

- [1] Bellcore GR-1503-CORE “Generic Requirements for Coaxial Connectors (Series 59, 6, 7 and 11) 3/95

4. Conclusion

The use of Poly/Chem Shrink as an encapsulate around the port, connector, and cable marketedly improves the holding force of the connectors and therefore helps prevent the loosening of connectors in the field.