

Temperature shock

(in accordance with MIL-STD-202C/107B)

The specimens are exposed several times to a temperature shock (-55° to $+200^{\circ}\text{C}$). Cracks due to overstressing during crimping will come to light. After the test resistance and pull-out force are measured.

Temperature cycling

(in accordance with MIL-STD-202C/102A)

This is an accelerated life test which includes several cycles $-55^{\circ}\text{C}/18^{\circ}\text{C}/125^{\circ}\text{C}$. Subsequently resistance and pull-out force are measured.

High temperature storage

This test also simulates aging of the crimp joint. The specimens are exposed for 1000 hours to a temperature of 125°C and continuously loaded to 1 A DC. After the test the resistance and pull-out force are measured.

Corrosion test

This test is to determine the degree of cold welding between connector parts and cable. The specimens are exposed to 0.5% concentrations of H_2S and SO_2 (24 hours each). The resistance is then measured.

Results of tests on Series N inner conductors and RG 214/U cable

	Crimp force	Crimp joint resistance before	Crimp joint resistance after	Pull-out force before	Pull-out force after
Temperature cycling Temperature shock High temperature storage Corrosion test	approx. 350 kp for all specimens	0.06 m Ω 0.03 m Ω 0.05 m Ω 0.05 m Ω	0.03 m Ω 0.03 m Ω 0.02 m Ω 0.06 m Ω	Inner conductor fractures at approx. 75 kp	Inner conductor fractures at approx. 75 kp