

Kurzbeschreibung des Versuches / short description of the test	Verwendete Artikel und/oder Materialien / used articles and/or materials				Datum / date
Pull out test: crimping solution for customer Miasin in NL for different NEXANS cables	article no. IC	article description	article no. IC	article description	30.05.2018
	Tubular cable lugs		Crimping dies: I-Crimp		Prüfer / tester
	ICR165	Rohrkabelschuhe 16mm ² M5 gv	MI16-CK	Compression dies MI16-CK	Paul Eder
	ICR9510	Rohrkabelschuhe 95mm ² M10 gv	MI95-CK	Compression dies MI95-CK	Unterschrift:
	ICR12010	Rohrkabelschuhe 120mm ² M10 gv	MI120-CK	Compression dies MI120-CK	
Crimping solution with I-Crimp for NEXANS copper cables class 5 flexible conductor: 16mm² / 95 mm² / 120mm² / 185mm² / 300 mm². Micro section	ICR18510	Rohrkabelschuhe 185mm ² M10 gv	MI185-CK	Compression dies MI185-CK	Benötigte Zeit in h / time
	ICR30012	Rohrkabelschuhe 300mm ² M12 gv	MI300-CK	Compression dies MI300-CK	5

Vorgaben / requirements / specifications
Pull out test conform with DIN EN 61238-1: Compression and mechanical connectors for powers cables for rated voltages up to 36 KV (Um=42kv - Part 1)

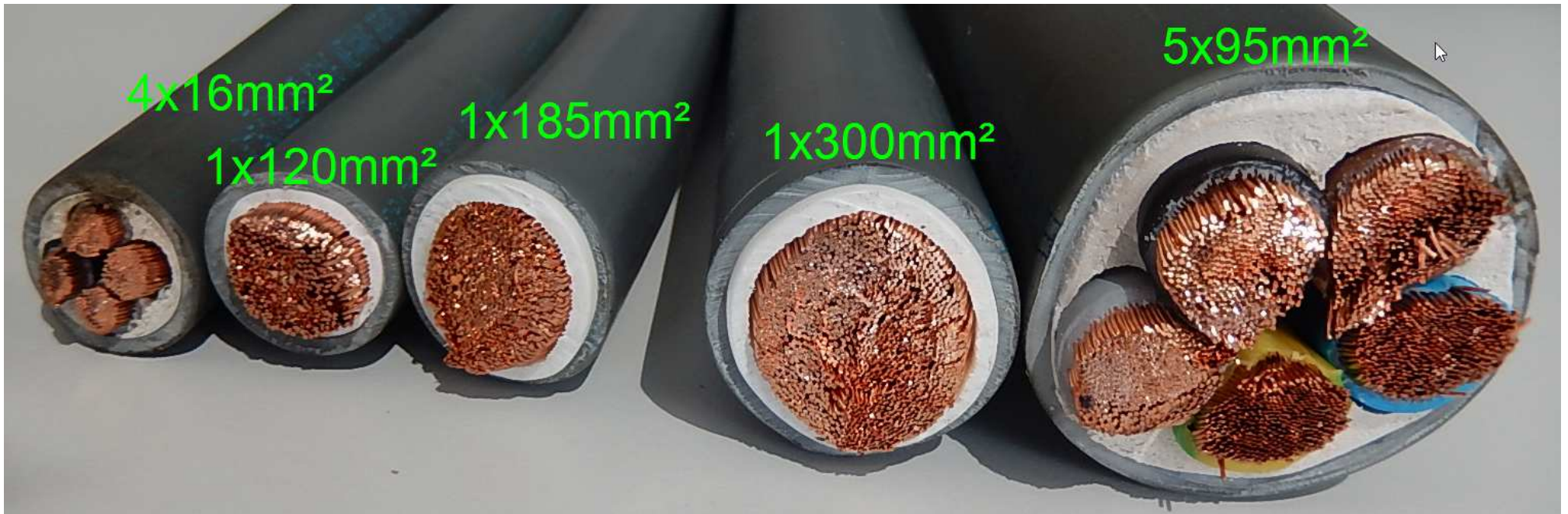
Ziel des Versuchs / target of the test
finding a crimping solution: To pass the test according to the standard DIN EN 61238-1, the conductor must not slip in the crimp/press connection at 100% of the tensile force and a holding time of 60 seconds

Ergebnis / Fazit / result
The required pulling force to the norm DIN EN 61238-1 could be maintained for one minute without slipping and, in addition, a much higher maximum force was achieved. All attempts were completed positively. The crimping solution is thus released.

DIN EN 61238-1: Tensile force for mechanical test: No slipping shall occur during the last minute of the test.

Conductor material: **Copper: 60 x nominal cross sectional area (mm²)** / Used compression tool AP60-2: Battery operated hydraulic crimping tool 60kN for dies series 60-2/4 up to 300mm²

Nr.	Ablauf, Vorgaben / procedure / requirements / specifications pull out test conform with DIN EN 61238-1	Sollwert / required value [N]	Istwerte / detected value [N]	result		Bemerkungen / remark
				pos.	neg.	
1	NEXANS cable 16mm ² with ICR165 and MI16-CK (2 crimps with AP60-2)	960 N	2.629 N	x		The required pulling force could be maintained for one minute without slipping and, in addition, a much higher maximum force was achieved.
2	NEXANS cable 95mm ² with ICR9510 and MI95-CK (2 crimps with AP60-2)	5.700 N	16.213 N	x		
3	NEXANS cable 120mm ² with ICR12010 and MI120-CK (3 crimps with AP60-2)	7.200 N	14.869 N	x		
3	NEXANS cable 185mm ² with ICR18510 and MI185-CK (3 crimps with AP60-2)	11.100 N	15.739 N	x		
4	NEXANS cable 300mm ² with ICR30012 and MI300-CK (4 crimps with AP60-2)	18.000 N	34.176 N	x		



cable with I-crimp dies

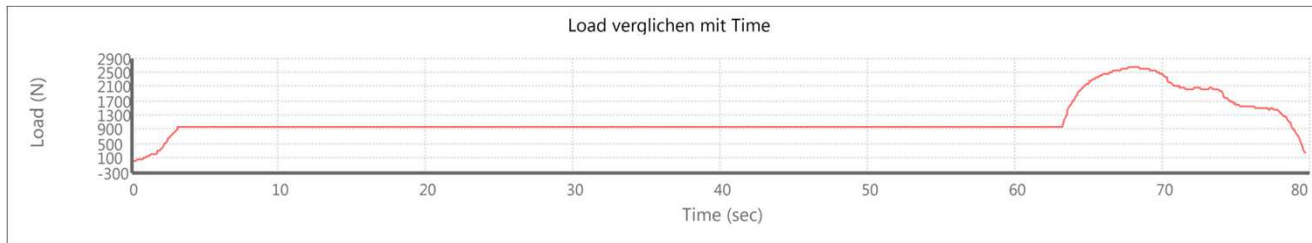
AP60-2: Battery operated hydraulic crimping tool 60kN up to 300mm² pull compression machine up to 50 kN



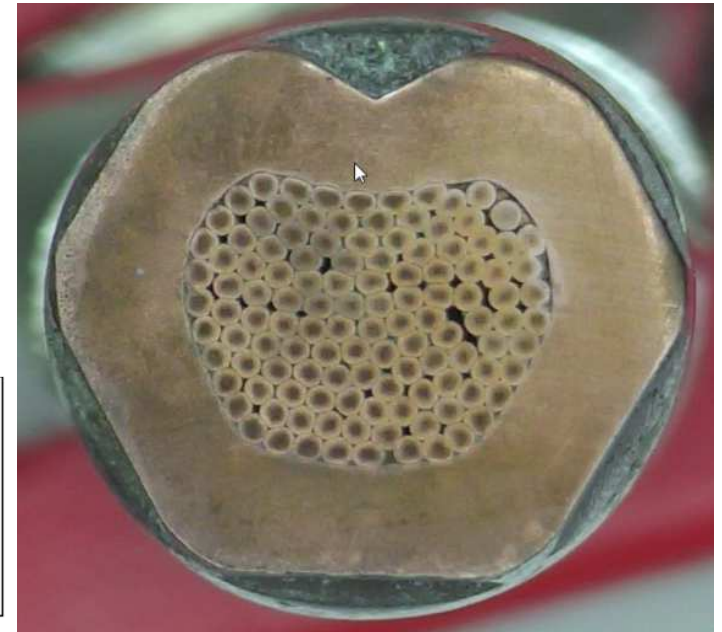
NEXANS cable 16mm² with ICR165 and MI16-CK (2 crimps with AP60-2)



required value [N]	960 N
detected value [N]	2.629 N



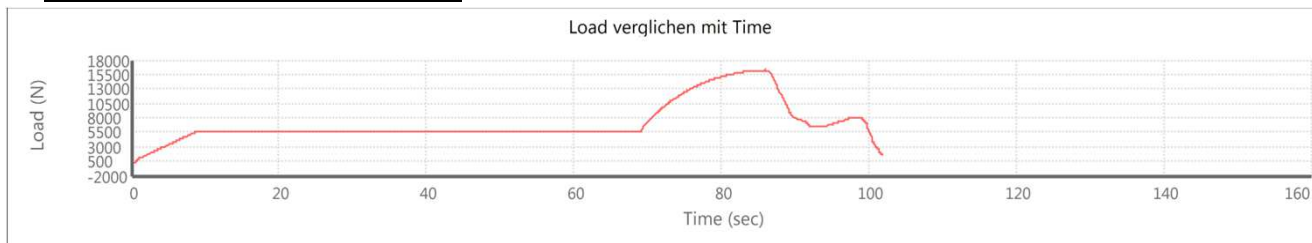
Micro Section 16mm²



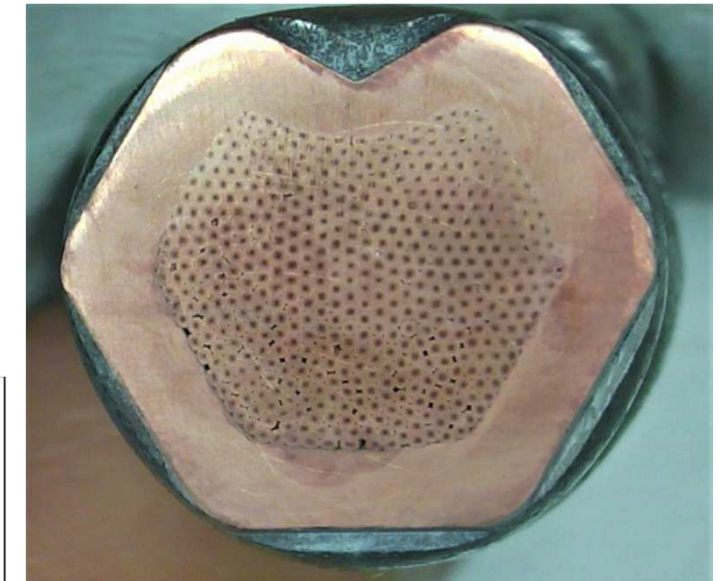
NEXANS cable 95mm² with ICR9510 and MI95-CK (2 crimps with AP60-2)



required value [N]	5.700 N
detected value [N]	16.213 N



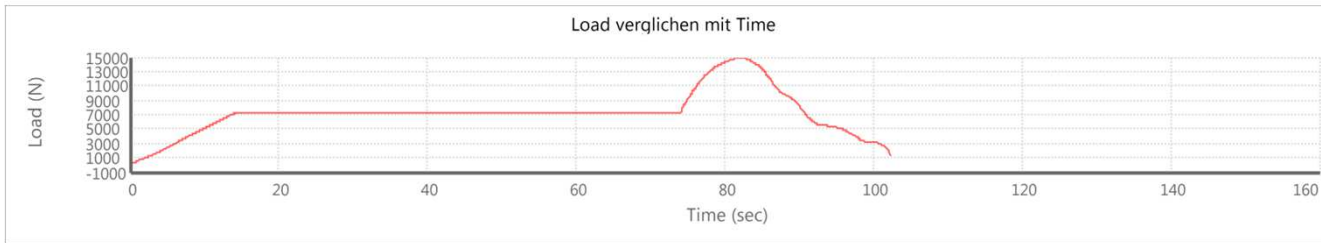
Micro Section 95mm²



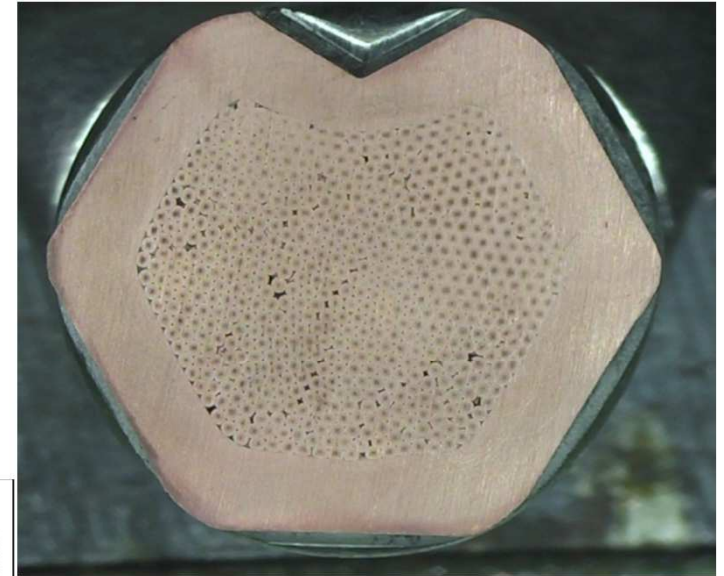
NEXANS cable 120mm² with ICR12010 and MI120-CK (3 crimps with AP60-2)



required value [N]	7.200 N
detected value [N]	14.869 N



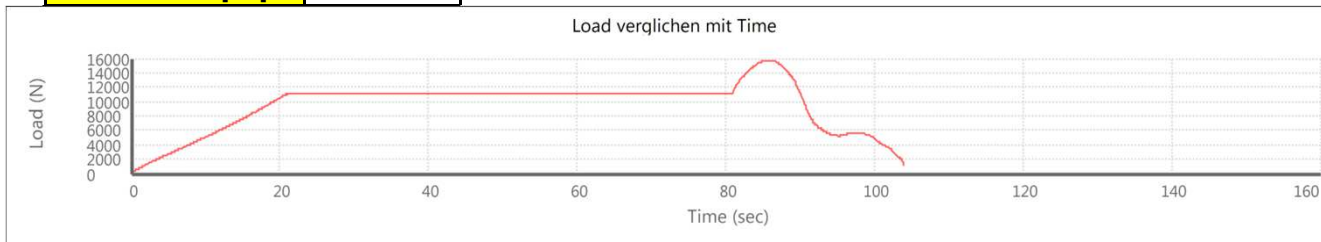
Micro Section 120mm²



NEXANS cable 185mm² with ICR18510 and MI185-CK (3 crimps with AP60-2)



required value [N]	11.100 N
detected value [N]	15.739 N



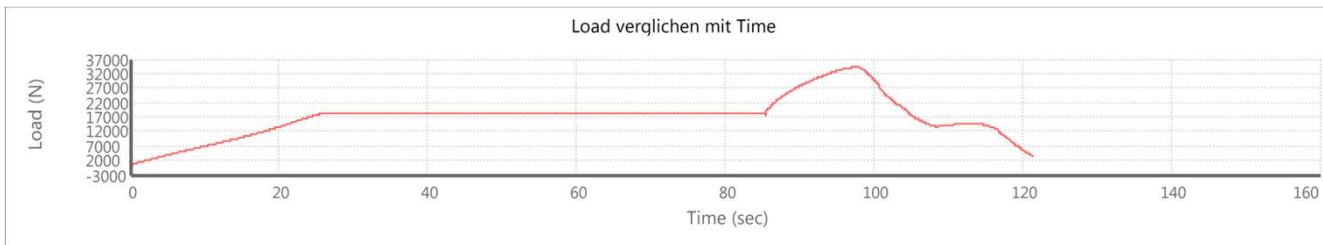
Micro Section 185mm²



NEXANS cable 300mm² with ICR30012 and MI300-CK (4 crimps with AP60-2)



required value [N]	18.000 N
detected value [N]	34.176 N



Micro Section 300mm²

