

ANHUI FEICHUN SPECIAL CABLE CO., LTD.

安徽飞纯特种电缆有限公司



TENAX-PUR CABLE

(N)TSCGEH3S I 6-10 KV

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TENAX-PUR is a medium voltage trailing cable engineered for the power supply to large mobile equipment in mines, including shovels and draglines. The outer sheath is available in orange, yellow, or other colors on demand and is extremely robust and tough against abrasion and tearing. This cable is suitable for fully flexible operation down to temperatures as low as -50°C, making it ideal for demanding mining environments where reliability and durability are paramount.

STANDARDS / APPROVALS

General	DIN VDE 0250-813	Conductor	DIN EN 60228 / IEC 60228 / VDE 0295
Fire Performance	DIN EN 60332-1-2 / IEC 60332-1-2	Fire Performance	IEC 60754-2
Electrical Parameters	DIN VDE 0298-4	Chemical Behaviour	DIN EN 60811-404 / IEC 60811-404

THERMAL PARAMETERS

MAX. CONDUCTOR TEMPERATURE 90 °C	MAX. CONDUCTOR TEMP. AT SHORT CIRCUIT 250 °C	AMBIENT TEMP. FIX INSTALL. (MIN) -50 °C
AMBIENT TEMP. FIX INSTALL. (MAX) 80 °C	AMBIENT TEMP. FLEXIBLE INSTALL. (MIN) -50 °C	AMBIENT TEMP. FLEXIBLE INSTALL. (MAX) 60 °C

CHEMICAL PARAMETERS

✓ FLAME RETARDANT EN/IEC 60332-1-2	✓ HALOGEN FREE	✓ OIL RESISTANT
✓ OZONE RESISTANCE	✓ UV RESISTANT	

MECHANICAL PARAMETERS

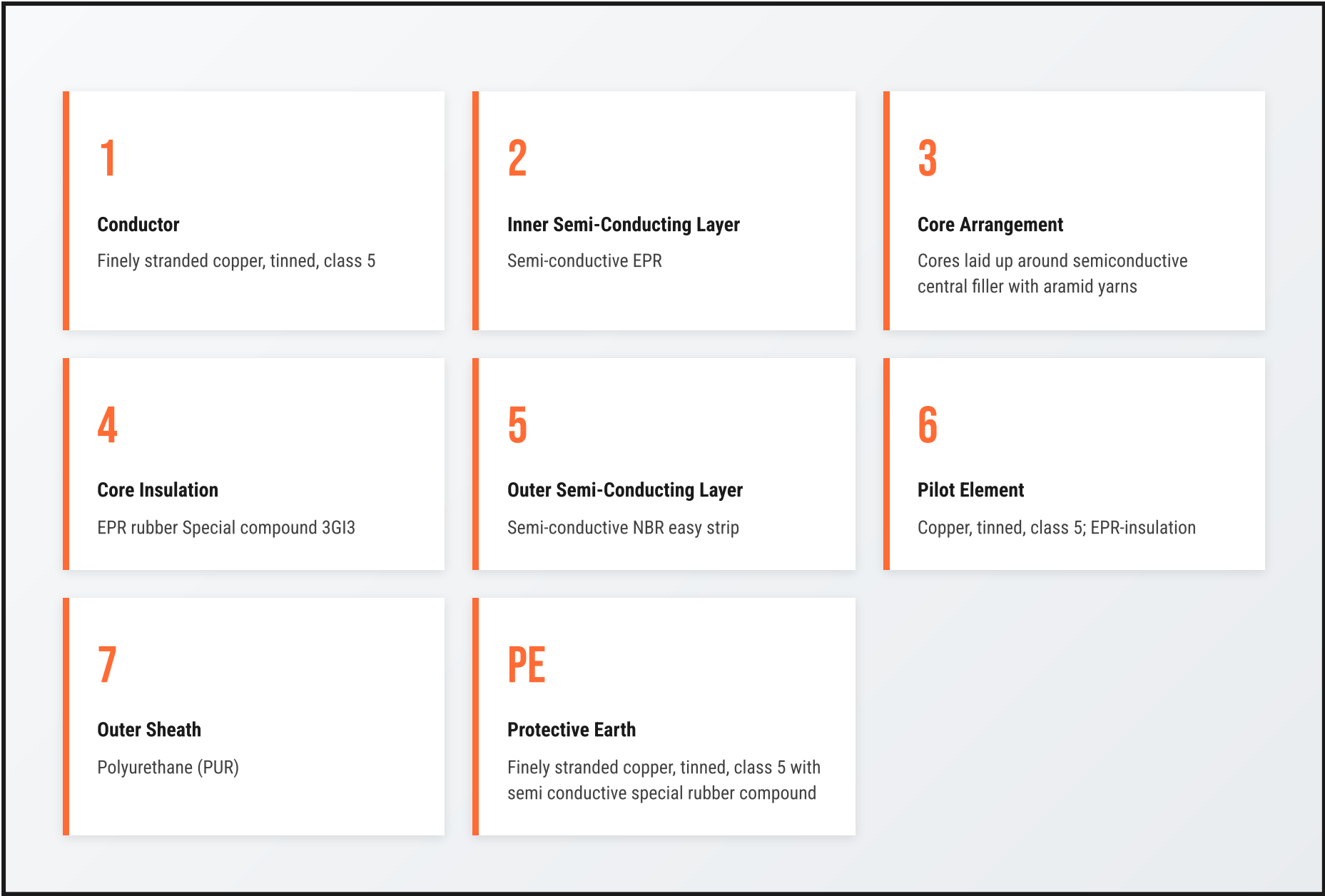
PERMANENT TENSILE STRENGTH (STATIC) 25 N/mm²	BENDING RADIUS (FIXED INSTALLATION) 6 × D According to VDE 0298-3	BENDING RADIUS (FLEXIBLE OPERATION) 10 × D According to VDE 0298-3
MIN DISTANCE (S-TYPE DIRECTIONAL CHANGES) 20 × D According to VDE 0298-3		

ELECTRICAL PARAMETERS

RATED VOLTAGE U ₀ /U (UM) - 3.6/6 KV 3.6/6 (7.2) kV	RATED VOLTAGE U ₀ /U (UM) - 6/10 KV 6/10 (12) kV	TEST VOLTAGE - 3.6/6 KV 11 kV
TEST VOLTAGE - 6/10 KV 17 kV	NOMINAL VOLTAGE U - 3.6/6 KV 6,000 V	NOMINAL VOLTAGE U - 6/10 KV 10,000 V



CABLE STRUCTURE



CABLE PROPERTIES

TENAX-PUR (N)TSCGEH3S 3.6/6 KV

BASIC CONSTRUCTION	CONDUCTOR Ø (MM)	CABLE Ø MIN (MM)	CABLE Ø MAX (MM)	CABLE WEIGHT (KG/KM)	MAX. TENSILE STRENGTH (N)	NOMINAL OP. CAPACITANCE (NF/KM)	OP. SELF INDUCTANCE (MH/KM)	CONDUCTOR RESISTANCE AT 20 °C (Ω/KM)	CURRENT CARRYING CAPACITY (A)
3x35+2x16+1x16	7.5	46	50	3,380	2,625	320	0.35	0.565	162
3x25+2x16+1x16	6.2	43.5	47.5	2,800	1,875	300	0.37	0.795	131
3x16+2x10+1x10	5	42.2	46.2	2,400	1,200	280	0.39	1.24	99
3x35+2x16+1x16	7.5	46	50	3,380	2,625	320	0.35	0.565	162
3x50+2x16+1x16	9	47.4	51.4	3,760	3,750	360	0.32	0.393	202
3x70+2x25+1x16	11	52	56	4,700	5,250	410	0.3	0.277	250
3x95+2x25+1x16	12.6	55.3	59.3	5,420	7,125	460	0.29	0.21	301
3x120+2x35+1x16	14.8	60.5	64.5	6,700	9,000	520	0.28	0.164	352
3x120+2x35+1x16	14.8	60.5	64.5	6,700	9,000	520	0.28	0.164	352
3x150+2x35+1x16	16	62.5	66.5	7,430	11,250	560	0.27	0.132	404

BASIC CONSTRUCTION	CONDUCTOR Ø (MM)	CABLE Ø MIN (MM)	CABLE Ø MAX (MM)	CABLE WEIGHT (KG/KM)	MAX. TENSILE STRENGTH (N)	NOMINAL OP. CAPACITANCE (NF/KM)	OP. SELF INDUCTANCE (MH/KM)	CONDUCTOR RESISTANCE AT 20°C (Ω/KM)	CURRENT CARRYING CAPACITY (A)
3x150+3x95/3	16	62.5	66.5	8,170	11,250	560	0.27	0.132	404
3x185+2x50+1x16	17.7	68.5	72.5	9,500	13,875	600	0.26	0.108	461

TENAX-PUR (N)TSCGEH3S 6/10 KV

BASIC CONSTRUCTION	CONDUCTOR Ø (MM)	CABLE Ø MIN (MM)	CABLE Ø MAX (MM)	CABLE WEIGHT (KG/KM)	MAX. TENSILE STRENGTH (N)	NOMINAL OP. CAPACITANCE (NF/KM)	OP. SELF INDUCTANCE (MH/KM)	CONDUCTOR RESISTANCE AT 20°C (Ω/KM)	CURRENT CARRYING CAPACITY (A)
3x35+2x16+1x16	7.5	46	50	3,380	2,625	290	0.35	0.565	162
3x50+2x16+1x16	9	49.2	53.2	3,800	3,750	330	0.33	0.393	202
3x70+2x25+1x16	11	53.5	57.5	4,850	5,250	370	0.31	0.277	250
3x95+2x25+1x16	12.6	57	61	5,700	7,125	420	0.3	0.21	301
3x120+2x35+1x16	14.8	61.7	65.7	6,990	9,000	470	0.29	0.164	352
3x150+2x35+1x16	16	65.5	69.5	7,800	11,250	500	0.28	0.132	404
3x185+2x50+1x16	17.7	72.8	76.8	10,000	13,875	540	0.27	0.108	461
3x240+2x70+1x16	20.3	77.3	81.3	12,500	18,000	600	0.26	0.0817	540

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