

## AS/NZS 2802 TYPE 450

GENEL KULLANIM İÇİN MADEN KABLOSU (KAPALI KÖMÜR MADENLERİ HARİÇ)  
MINING CABLE FOR GENERAL USE (EXCEPT FOR UNDERGROUND COAL MINES)

3.3-22 kV

### KONSTRÜKSİYON AÇIKLAMASI / CONSTRUCTION DESCRIPTION

3 faz damarı ile aralarına yerleştirmiş 2 toprak ve 1 kumanda damarı, taşıyıcı fitil etrafında bükülür. Faz damarları kompozit ekran ve yarıiletken tabaka ile ekranlanır. Dolgu ve dış kılıf arasında mukavemet arttırıcı ip örgü mevcuttur.  
3 phase cores, 2 interstitial earth cores and one pilot core laid up around a cradle. Phase cores are screened by a composite screen and a semiconductive layer. Contains open weave braid reinforcement layer.

### KABLO YAPISI

- 1- İLETKEN : Elektrolitik, kalaylı çoklu bükülmüş esnek bakır tel. (Rope lay) AS/NZS 1125-2.10
- 2- AYIRICI : Faz ve toprak iletkenleri yarıiletken tabaka kaplı
- 3- İZOLASYON : XR-EP-90 (Sınıf 1, AS/NZS 3808'e göre) (Toprak iletkenleri izole edilmez)
- 4- AYIRICI : Yarıiletken tabaka
- 5- EKTRAN : Faz damarların üzeri kalaylı bakır tel/ip ve yarıiletken elastomer ekran ile kaplı.
- 6- BÜKÜM : Tüm faz damarları birbirlerine değecek şekilde ve iki adet toprak ve bir nötr damarı aralara gelecek şekilde bükülür
- 7- DOLGU MALZEMESİ : Elastomerik bileşik
- 8- AYIRICI : Mukavemet arttırıcı aralıklı örgü ip
- 9- DIŞ KILIF : Ekstra ağır hizmete yönelik elastomer dış kılıf (AS/NZS 3808'e göre)

### CABLE STRUCTURE

- 1- CONDUCTOR : Electrolytic, multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2.10
- 2- SEPARATOR : Semiconducting layer over power and earth conductors
- 3- INSULATION : XR-EP-90 (Class 1, acc. to AS/NZS 3808) (Earth cores are not insulated)
- 4- SEPARATOR : Semiconducting layer
- 5- SCREEN : Tinned copper / Nylon braid and semiconductive elastomer screen over phase cores.
- 6- LAYUP : All phase cores are laid up in contact with each other. Two ground cores and one pilot core are laid up in between.
- 7- BEDDING : Elastomeric compound
- 8- SEPARATOR : Open weave braid for reinforcement
- 9- OUTER SHEATH : Extra heavy-duty elastomer outer sheath (acc. to AS/NZS 3808)



### KABLO ÖZELLİKLERİ / CABLE PROPERTIES

İLGİLİ STANDARTLAR / RELATED STANDARDS

ANMA GERİLİMİ / RATED VOLTAGE

TEST GERİLİMİ / TEST VOLTAGE

: AS/NZS 2802

: 3.3/3.3 kV, 6.6/6.6 kV, 11/11 kV, 22/22 kV

: 12 kV, 22 kV, 30 kV, 45 kV

### KULLANIM ALANI

Madenlerde genel kullanım içindir (kapalı kömür madenleri hariç). İnce fakat güçlü bir yapıya sahiptir.

### ORTAM

Açık ve kapalı maden ocaklarında kullanılır

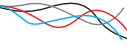
### APPLICATION

General use cable for mines (except for underground coal mines). It has smaller dimensions but strong structure.

### ENVIRONMENT

Used in underground and open mines

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Nominal Kesit Cross-section mm <sup>2</sup>	Güç damarları Power Cores				Ekran Core screen		Kumanda damarı Pilot core		Kılıf Sheath		Ağırlıklar Mass	
	Büküm Strand no/mm	İletken Çapı Conductor Diameter Nom. mm	İzolasyon kalınlığı Insulation thickness mm	İzolasyon çapı Insulation diameter Nom. mm	Örgü telleri Braid wires no/mm	Nominal Kesit Cross- section mm <sup>2</sup>	Büküm Strand no/mm	İzolasyon kalınlığı Insulation thickness mm	Kalınlık Thickness mm	Kablo çapı Overall diameter Nom. Mm	Yaklaşık kablo ağırlığı Approx. cable weight kg/km	Bakır ağırlığı Copper weight kg/km
Type	450.3	3.3/3.3kV	Class 1	insulation								
16	126/0,40	5.7	2.2	12.4	128/0.25	6.3	114/0.30	1.4	4.5	42.8	2,650	876
25	209/0,40	7.2	2.2	13.9	118/0.30	8.3	114/0.30	1.4	4.8	46.9	3,350	1,193
35	285/0,40	8.5	2.2	15.2	127/0.30	9	114/0.30	1.4	5.1	50.3	3,900	1,501
50	380/0,40	10	2.4	17.1	141/0.30	10	171/0.30	1.4	5.6	55.5	4,850	2,077
70	203/0,67	12	2.4	19.1	117/0.40	14.7	51/0.67	1.4	6	61.1	6,350	2,958
95	259/0,67	13.2	2.4	20.3	123/0.40	15.5	70/0.67	1.6	6.3	64.3	7,300	3,894
120	336/0,67	15.3	2.4	22.4	135/0.40	17	84/0.67	1.6	6.4	69	8,650	4,801
150	427/0,67	17.1	2.4	24.2	144/0.40	18.1	112/0.67	1.6	6.6	73.3	10,200	5,979
185	518/0,67	19.2	2.4	26.3	144/0.40	18.1	132/0.67	1.6	6.7	78.1	11,700	7,192
240	672/0,67	21.8	2.4	28.9	136/0.50	26.7	168/0.67	1.6	6.9	84.5	14,400	9,389
300	854/0,67	24.4	2.4	31.5	144/0.50	28.3	228/0.67	1.6	7	90.4	17,400	11,771
Type	450.6	6.6/6.6kV	Class 1	insulation								
16	126/0,40	5.7	3	14	118/0.30	8.3	114/0.30	1.4	5	47.6	3,150	934
25	209/0,40	7.2	3	15.5	129/0.30	9.1	114/0.30	1.6	5.2	51.2	3,800	1,216
35	285/0,40	8.5	3	16.8	139/0.30	9.8	114/0.30	1.6	5.5	54.7	4,400	1,524
50	380/0,40	10	3	18.3	149/0.30	10.5	171/0.30	1.6	5.9	58.8	5,300	2,091
70	203/0,67	12	3	20.3	123/0.40	15.5	51/0.67	1.6	6.3	64.3	6,800	2,981
95	259/0,67	13.2	3	21.5	130/0.40	16.3	70/0.67	1.8	6.4	67.1	7,700	3,917
120	336/0,67	15.3	3	23.6	141/0.40	17.7	84/0.67	1.8	6.5	71.9	9,100	4,822
150	427/0,67	17.1	3	25.4	144/0.40	18.1	112/0.67	1.8	6.6	76	10,700	5,979
185	518/0,67	19.2	3	27.5	144/0.40	18.1	132/0.67	1.8	6.8	80.9	12,200	7,192
240	672/0,67	21.8	3	30.1	141/0.50	27.7	168/0.67	1.8	7	87.4	15,000	9,418
300	854/0,67	24.4	3	32.7	144/0.50	28.3	228/0.67	1.8	7.1	93.2	17,900	11,771
Type	450.11	11/11kV	Class 1	insulation								
25	209/0,40	7.2	5	19.6	120/0.40	15.1	114/0.30	2	6.3	62.8	5,400	1,389
35	285/0,40	8.5	5	20.9	127/0.40	16	114/0.30	2	6.4	65.8	6,000	1,703
50	380/0,40	10	5	22.4	135/0.40	17	171/0.30	2	6.5	69.3	6,900	2,279
70	203/0,67	12	5	24.4	144/0.40	18.1	51/0.67	2	6.6	73.8	8,250	3,056
95	259/0,67	13.2	5	25.6	144/0.40	18.1	70/0.67	2.2	6.7	76.6	9,250	3,969
120	336/0,67	15.3	5	27.7	144/0.40	18.1	84/0.67	2.2	6.9	81.6	10,800	4,833
150	427/0,67	17.1	5	29.5	139/0.50	27.3	112/0.67	2.2	7	86.1	12,600	6,244
185	518/0,67	19.2	5	31.6	144/0.50	28.3	132/0.67	2.2	7.1	90.8	14,300	7,486
240	627/0,67	21.8	5	34.2	144/0.50	28.3	168/0.67	2.2	7.3	96.8	16,900	9,435
300	854/0,67	24.4	5	36.8	144/0.50	28.3	228/0.67	2.2	7.4	102.7	20,000	11,771
Type	450.22	22/22KV	Class 1	insulation								
35	285/0,40	8.5	7.6	26.3	144/0.40	18.1	114/0.30	2.5	6.8	78.4	8,050	1,763
50	380/0,40	10	7.6	27.8	144/0.40	18.1	171/0.30	2.5	6.9	81.8	9,000	2,310
70	203/0,67	12	7.6	29.8	140/0.50	27.5	51/0.67	2.5	7	86.8	10,700	3,327
95	259/0,67	13.2	7.6	31	144/0.50	28.3	70/0.67	2.5	7.2	89.8	11,800	4,263
120	336/0,67	15.3	7.6	33.1	144/0.50	28.3	84/0.67	2.5	7.3	94.5	13,500	5,127
150	427/0,67	17.1	7.6	34.9	144/0.50	28.3	112/0.67	2.5	7.4	98.6	15,200	6,273
185	518/0,67	19.2	7.6	37	144/0.50	28.3	132/0.67	2.5	7.5	103.4	17,000	7,486
240	627/0,67	21.8	7.6	39.6	144/0.50	28.3	168/0.67	2.5	7.7	109.4	19,800	9,435
300	854/0,67	24.4	7.6	42.2	144/0.50	28.3	228/0.67	2.5	7.9	115.4	23,100	11,771