

## AS/NZS 2802 TYPE 455

**YARIİLETKEN EKranLI MADEN KABLOSU (KAPALI KÖMÜR MADENLERİ HARİÇ)**  
**SEMICONDUCTIVE SCREENED MINING CABLE (EXCEPT FOR UNDERGROUND COAL MINES)**

3.3-22 kV

### KONSTRÜKSİYON AÇIKLAMASI / CONSTRUCTION DESCRIPTION

3 faz damarı ile aralarına yerleştirilmiş 2 toprak ve 1 kumanda damarı birlikte bükülür. Faz damarlar yarıiletken dolgu ile ekranlanır. Dolgu ve dış kılıf arasında mukavemet artırıcı ip örgü mevcuttur.

*3 phase cores, 2 interstitial earth cores and one pilot core laid up together. Phase cores are screened by a semiconductive layer over insulation. 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** : 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- EKran** : Faz damarların üzeri 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** : Yarıiletken elastomerik bileşik
- 8- AYIRICI** : Mukavemet artırıcı 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- SEPERATOR** : Semiconducting layer over earth conductors
- 3- INSULATION** : XR-EP-90 (Class 1, acc. to AS/NZS 3808) (Earth cores are not insulated)
- 4- SEPERATOR** : Semiconducting layer
- 5- SCREEN** : 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 laidup in between.
- 7- BEDDING** : Semiconducting elastomeric compound
- 8- SEPERATOR** : 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 dizaynı sebebi ile tambura sarım gereken yerlerde tercih edilir.

**ORTAM**

Açık ve kapalı maden ocaklarında kullanılır

**APPLICATION**

General use cable for mines (except for underground coal mines). Suitable to trailing and reeling due to its' smaller dimensions.

**ENVIRONMENT**

Used in underground and open mines

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Güç damarları Power Cores					Kumanda ve toprak damarları Pilot and earth cores		Kılıf Sheath		Ağırlıklar Mass	
Nominal Kesit Cross-section mm <sup>2</sup>	Büküm Strand no/mm	İletken Çapı Conductor Diameter Nom. mm	İzolasyon kalınlığı Insulation thickness mm	İzolasyon çapı Insulation diameter Nom. mm	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	455.3	3.3/3.3kV	Class 1	insulation						
16	126/0.40	5.7	2.2	12.4	114/0.30	1.4	4.2	39.4	2,250	695
25	209/0.40	7.2	2.2	13.9	114/0.30	1.4	4.5	43.3	2,800	954
35	285/0.40	8.5	2.2	15.2	114/0.30	1.4	4.8	46.7	3,350	1,242
50	380/0.40	10	2.4	17.1	171/0.30	1.4	5.3	51.9	4,250	1,789
70	203/0.67	12	2.4	19.1	51/0.67	1.4	5.7	57	5,550	2,535
95	259/0.67	13.2	2.4	20.3	70/0.67	1.6	6.1	60.5	6,450	3,448
120	336/0.67	15.3	2.4	22.4	84/0.67	1.6	6.4	65.6	7,850	4,312
150	427/0.67	17.1	2.4	24.2	112/0.67	1.6	6.5	69.7	9,300	5,458
185	518/0.67	19.2	2.4	26.3	132/0.67	1.6	6.6	74.5	10,700	6,671
240	672/0.67	21.8	2.4	28.9	168/0.67	1.6	6.8	80.5	13,100	8,620
300	854/0.67	24.4	2.4	31.5	228/0.67	1.6	6.9	86.3	16,000	10,956
Type	455.6	6.6/6.6kV	Class 1	insulation						
16	126/0.40	5.7	3	14	114/0.30	1.4	4.7	43.9	2,650	695
25	209/0.40	7.2	3	15.5	114/0.30	1.6	5	47.8	3,300	954
35	285/0.40	8.5	3	16.8	114/0.30	1.6	5.3	51.3	3,850	1,242
50	380/0.40	10	3	18.3	171/0.30	1.6	5.6	55.1	4,650	1,789
70	203/0.67	12	3	20.3	51/0.67	1.6	6	60.3	5,950	2,535
95	259/0.67	13.2	3	21.5	70/0.67	1.8	6.3	63.5	6,900	3,448
120	336/0.67	15.3	3	23.6	84/0.67	1.8	6.5	68.5	8,250	4,312
150	427/0.67	17.1	3	25.4	112/0.67	1.8	6.6	72.6	9,750	5,458
185	518/0.67	19.2	3	27.5	132/0.67	1.8	6.7	77.3	11,200	6,671
240	672/0.67	21.8	3	30.1	168/0.67	1.8	6.9	83.3	13,600	8,620
300	854/0.67	24.4	3	32.7	228/0.67	1.8	7	89.1	16,500	10,956
Type	455.11	11/11kV	Class 1	insulation						
16	126/0.40	5.7	5	18.1	114/0.30	2	5.8	55.1	3,900	695
25	209/0.40	7.2	5	19.6	114/0.30	2	6.1	59	4,600	954
35	285/0.40	8.5	5	20.9	114/0.30	2	6.3	62.2	5,250	1,242
50	380/0.40	10	5	22.4	171/0.30	2	6.4	65.6	6,050	1,789
70	203/0.67	12	5	24.4	51/0.67	2	6.5	70.2	7,400	2,535
95	259/0.67	13.2	5	25.6	70/0.67	2.2	6.7	73.2	8,350	3,448
120	336/0.67	15.3	5	27.7	84/0.67	2.2	6.8	77.9	9,800	4,312
150	427/0.67	17.1	5	29.5	112/0.67	2.2	6.9	82	11,400	5,458
185	518/0.67	19.2	5	31.6	132/0.67	2.2	7	86.8	13,000	6,671
240	672/0.67	21.8	5	34.2	168/0.67	2.2	7.2	92.8	15,500	8,620
Type	455.22	22/22KV	Class 1	insulation						
16	126/0.40	5.7	7.6	23.5	120/0.30	2.5	6.6	68.5	5,750	695
25	209/0.40	7.2	7.6	25	120/0.30	2.5	6.6	71.7	6,500	954
35	285/0.40	8.5	7.6	26.3	120/0.30	2.5	6.7	74.7	7,150	1,242
50	380/0.40	10	7.6	27.8	183/0.30	2.5	6.8	78.2	8,100	1,789
70	203/0.67	12	7.6	29.8	54/0.67	2.5	7	82.9	9,550	2,535
95	259/0.67	13.2	7.6	31	70/0.67	2.5	7.1	85.7	10,600	3,448
120	336/0.67	15.3	7.6	33.1	84/0.67	2.5	7.2	90.5	12,200	4,312
150	427/0.67	17.1	7.6	34.9	112/0.67	2.5	7.3	94.6	13,900	5,458
185	518/0.67	19.2	7.6	37	132/0.67	2.5	7.4	99.3	15,600	6,671

