

## AS/NZS 1802 TYPE 209

GENEL KULLANIM İÇİN KAPALI KÖMÜR MADENİ KABLOSU  
UNDERGROUND COAL MINE CABLE FOR GENERAL USE

1.1-11 kV

### KONSTRÜKSİYON AÇIKLAMASI / CONSTRUCTION DESCRIPTION

Kompozit ekranlı 3 faz damarı, merkezi bir kumanda damarı içeren yarıiletken taşıyıcı fitil etrafında bükülür.  
3 phase cores with composite screens laid up around a semiconductive cradle containing a central pilot core.

### KABLO YAPISI

- 1- İLETKEN** : Elektrolitik, kalaylı çoklu bükülmüş esnek bakır tel. (Rope lay) AS/NZS 1125-2.10  
**2- AYIRICI** : Yarıiletken tabaka (3.3/3.3 kV ve üstü)  
**3- İZOLASYON** : R-EP-90 (AS/NZS 3808'e göre)  
**4- AYIRICI** : Yarıiletken tabaka (3.3/3.3 kV ve üstü)  
**5- EKTRAN** : Faz damarlarının üzeri kalaylı bakır tel ve ip ekran ile örgülü.  
**6- BÜKÜM** : Damarlar birbirine değmeyecek şekilde içinde kumanda damarı bulunan yarıiletken fitil etrafına sarılarak bükülür.  
**7- DIŞ KILIF** : 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 (3.3/3.3kV and above)  
**3- INSULATION** : R-EP-90 (acc.to AS/NZS 3808)  
**4- SEPERATOR** : Semiconducting layer (3.3/3.3kV and above)  
**5- SCREEN** : Tinned copper / Nylon braided screen over phase cores.  
**6- LAYUP** : Cores are laid up over a semiconducting cradle with one pilot core in the center and without contacting each other.  
**7- OUTER SHEATH** : Heavy-duty elastomer outer sheath (acc.to AS/NZS 3808)



### KABLO ÖZELLİKLERİ / CABLE PROPERTIES

İLGİLİ STANDARTLAR / RELATED STANDARDS : AS/NZS 1802

ANMA GERİLİMİ / RATED VOLTAGE : 1.1/1.1 kV, 3.3/3.3 kV, 6.6/6.6 kV, 11/11 kV

TEST GERİLİMİ / TEST VOLTAGE : 4,2 kV, 12 kV, 22 kV, 30 kV

### KULLANIM ALANI

Kapalı kömür madenlerinde (nakliye araçları hariç) genel kullanım içindir. Kuyruk kablosu olarak kullanıma uygundur. İnce kesitleri el tipi kırıcı delici cihazları beslemede kullanılır.

### ORTAM

Patlayıcı gaz ve tozların olduğu kapalı maden ocaklarında kullanılır.

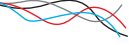
### APPLICATION

General use cable for underground coal mines (except for shuttle cars). Suitable to use as a trailing cable. Smaller cables used for drills and handheld equipment.

### ENVIRONMENT

Used in mines where explosive gasses and dust can accumulate.

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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	209.1	1.1/1.1kV										
6	840.30	3.4	1.5	6.5	7/0.25	7.2	24/0.20	0.8	3.8	30	1,300	388
10	770.40	4.6	1.5	7.7	7/0.25	8.6	24/0.20	0.8	3.8	32.6	1,600	543
16	1260.40	5.7	1.6	9	7/0.25	9.6	24/0.20	0.8	4	35.8	2,000	745
25	2090.40	7.2	1.6	10.5	7/0.25	11.3	24/0.20	0.8	4.3	39.7	2,600	1,053
35	2850.40	8.5	1.6	11.8	7/0.25	12.4	24/0.20	0.8	4.6	43.1	3,100	1,373
50	3800.40	10	1.7	13.5	7/0.25	14.1	40/0.20	0.8	5	47.7	3,850	1,859
70	2030.67	12	1.8	16	7/0.25	16.5	40/0.20	0.8	5.4	53.9	5,100	2,504
95	2590.67	13.2	2	17.6	7/0.25	18.2	40/0.20	0.8	6	58.6	6,100	3,273
120	3360.67	15.3	2.1	20	7/0.25	20.3	40/0.20	0.8	6.4	64.4	7,500	4,053
150	4270.67	17.1	2.3	22.2	7/0.25	22.3	40/0.20	0.8	6.9	70.2	9,050	4,975
185	5180.67	19.2	2.5	24.7	7/0.30	30.2	40/0.20	0.8	7.4	77.4	11,100	6,210
240	6720.67	21.8	2.8	27.9	7/0.30	33.6	40/0.20	0.8	8.2	86	13,800	7,892
300	8540.67	24.4	3	30.9	7/0.40	50.1	40/0.20	0.8	8.8	95.1	17,400	10,095
Type	209.3	3.3/3.3kV										
16	1260.40	5.7	3	12.5	7/0.25	13.1	24/0.20	0.8	5.3	46.2	3,000	846
25	2090.40	7.2	3	14	7/0.25	14.8	24/0.20	0.8	5.6	50.1	3,700	1,154
35	2850.40	8.5	3	15.3	7/0.25	15.8	24/0.20	0.8	5.9	53.5	4,300	1,471
50	3800.40	10	3	16.8	7/0.25	17.2	40/0.20	0.8	6.3	57.6	5,100	1,948
70	2030.67	12	3	18.8	7/0.25	18.6	40/0.20	0.8	6.6	62.5	6,250	2,564
95	2590.67	13.2	3	20	7/0.25	20.3	40/0.20	0.8	7.1	66.2	7,250	3,333
120	3360.67	15.3	3	22.1	7/0.30	27.2	40/0.20	0.8	7.4	72	8,800	4,252
150	4270.67	17.1	3	23.9	7/0.40	39.6	40/0.20	0.8	7.8	78	10,800	5,473
185	5180.67	19.2	3	26	7/0.40	42.2	40/0.20	0.8	8.2	83.4	12,500	6,556
240	6720.67	21.8	3	28.6	7/0.40	46.6	40/0.20	0.8	8.8	90.3	15,000	8,267
300	8540.67	24.4	3	31.2	7/0.50	63.2	40/0.20	0.8	9.4	98.4	18,400	10,473
Type	209.6	6.6/6.6kV										
16	1260.40	5.7	5	16.5	7/0.25	17.2	24/0.20	0.8	6.4	57.3	4,400	964
25	2090.40	7.2	5	18	7/0.25	18.6	24/0.20	0.8	6.7	61.2	5,150	1,263
35	2850.40	8.5	5	19.3	7/0.25	18.6	24/0.20	0.8	7	64.6	5,850	1,551
50	3800.40	10	5	20.8	7/0.25	21.3	40/0.20	0.8	7.3	68.5	6,700	2,066
70	2030.67	12	5	22.8	7/0.25	23.4	40/0.20	0.8	7.7	73.7	8,050	2,702
95	2590.67	13.2	5	24	7/0.30	29.2	40/0.20	0.8	8.1	77.8	9,350	3,589
120	3360.67	15.3	5	26.1	7/0.30	31.7	40/0.20	0.8	8.5	83.1	10,900	4,381
150	4270.67	17.1	5	27.9	7/0.40	45.7	40/0.20	0.8	8.9	89.1	13,100	5,649
185	5180.67	19.2	5	30	7/0.40	48.4	40/0.20	0.8	9.3	94.5	14,800	6,734
240	6720.67	21.8	5	32.6	7/0.40	52.8	40/0.20	0.8	9.9	101.4	17,500	8,445
300	8540.67	24.4	5	35.2	7/0.50	71.5	40/0.20	0.8	10.4	109.3	21,200	10,712
Type	209.11	11/11kV										
25	2090.40	7.2	7.6	23.4	7/0.25	23.7	24/0.20	0.8	8.1	75.6	7,500	1,410
35	2850.40	8.5	7.6	24.7	7/0.30	30.2	24/0.20	0.8	8.4	79.7	8,600	1,885
50	3800.40	10	7.6	26.2	7/0.30	31.7	40/0.20	0.8	8.7	83.6	9,600	2,365
70	2030.67	12	7.6	28.2	7/0.30	34.1	40/0.20	0.8	9.1	88.8	11,100	3,011
95	2590.67	13.2	7.6	29.4	7/0.40	47.5	40/0.20	0.8	9.6	93.7	12,900	4,116
120	3360.67	15.3	7.6	31.5	7/0.40	51	40/0.20	0.8	9.9	98.8	14,600	4,937
150	4270.67	17.1	7.6	33.3	7/0.40	53.7	40/0.20	0.8	10.3	103.5	16,400	5,879
185	5180.67	19.2	7.6	35.4	7/0.40	57.2	40/0.20	0.8	10.7	108.8	18,300	6,988