AD8 Permanent-Submersion Rubber & Pool Cables

PBS-POOL

Chlorinated-Water-Resistant Submersible Swimming Pool Cable



EN 50525-2-21 AD8 · 450/750 V (0.6/1 kV) · Chlorinated-water proof · Non-staining blue

AD8 Submersible | **450/750 V** | **Chlorinated Pool Water**

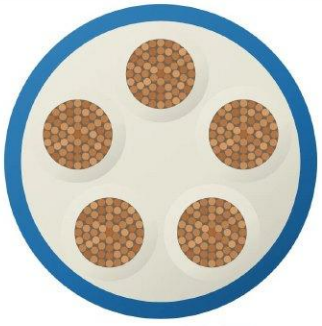
Application

PROFIPLAST PBS-POOL is a specialized 450/750 V (up to 0.6/1 kV) AD8 permanent-submersion flexible elastomer cable engineered for commercial and Olympic swimming pools, aquatic therapy basins, robotic pool cleaners, and underwater luminaires. Its

Typical uses: Olympic & Commercial Swimming Pools, Robotic Pool Cleaners & Dredgers, Underwater LED & Fountain Lighting, Thermal Spa & Thalassotherapy Basins, Aquaculture & Marine Aquariums

Construction





Cross-section, not to scale

1	Flexible tinned copper conductor	EN 60228 Class 5
2	Low-water-uptake EPR insulation	EN 50363-1
3	Chlorine-resistant pool elastomer sheath	EN 50525-2-21 AD8

Technical data

Typical values

Rated voltage U0/U	450/750 V AC (0.6/1 kV fixed)	Routine AC test voltage	2.5 kV rms / 5 min in water bath
Wet insulation resistance	≥ 1000 MΩ·km at +20 °C	SELV / PELV compatibility	12 V / 24 V AC/DC & 230/400 V AC
Conductor stranding	EN 60228 Class 5 tinned copper	Operating frequency	50 / 60 Hz & DC
Max. water temperature (AD8)	+40 °C continuous submersion	Max. conductor temp. (in air)	+90 °C continuous
Max. short-circuit temperature	+250 °C (max. 5 s)	Mobile ambient range	-25 °C to +60 °C
Fixed ambient range	-40 °C to +80 °C	Winter freeze resistance	Withstands ice formation in outdoor pools
Min. bend radius (fixed)	4 × overall diameter (D)	Min. bend radius (mobile cleaner)	6 × overall diameter (D)
Max. submersion depth (AD8)	Up to 50 m water head (5 bar)	Max. tensile pull on copper	15 N/mm²
Surface friction	Low-drag non-marking smooth finish	Abrasion resistance	Resistant to ceramic tile & concrete
Chlorinated pool water	Resistant up to 1.5–3.0 mg/L free Cl_2	Brominated & ozonated water	Resistant to pool sanitizing chemicals
Saltwater & thalassotherapy	100 % seawater & brine resistant	UV & outdoor sunlight	Colour-fast blue UV-stabilised jacket
Liner & tile non-staining	Zero plasticizer migration on PVC liners	RoHS / REACH status	Halogen-free / RoHS 3 compliant
Standards	EN 50525-2-21 Annex D/E (AD8)		

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Phase size mm²	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard PROFIPLAST PBS-POOL configurations 12 sizes						
☐ PROFIPLAST PBS-POOL 2×1.5	2×1.5	1.5	8.6	29	102	34
☐ PROFIPLAST PBS-POOL 2×2.5	2×2.5	2.5	10.2	48	145	41
☐ PROFIPLAST PBS-POOL 2×4.0	2×4.0	4.0	11.8	77	205	47
☐ PROFIPLAST PBS-POOL 2×6.0	2×6.0	6.0	13.4	115	275	54
☐ PROFIPLAST PBS-POOL 3G1.5	3G1.5	1.5	9.4	43	125	38
☐ PROFIPLAST PBS-POOL 3G2.5	3G2.5	2.5	11.1	72	180	44
☐ PROFIPLAST PBS-POOL 4G1.5	4G1.5	1.5	10.4	58	155	42
☐ PROFIPLAST PBS-POOL 4G2.5	4G2.5	2.5	12.2	96	225	49
☐ PROFIPLAST PBS-POOL 4G4.0	4G4.0	4.0	14.2	154	325	57
☐ PROFIPLAST PBS-POOL 4G6.0	4G6.0	6.0	16.2	230	445	65
☐ PROFIPLAST PBS-POOL 5G1.5	5G1.5	1.5	11.4	72	190	46
☐ PROFIPLAST PBS-POOL 5G2.5	5G2.5	2.5	13.5	120	275	54

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per EN 50525-2-21 AD8 / VDE 0285.

Electrical & ampacity data

12 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V rms
2×1.5	13.633	22	19	80	2,500
2×2.5	8.179	30	26	82	2,500
2×4.0	5.074	40	34	84	2,500

Configuration	Max. DC R @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V rms
2×6.0	3.382	51	43	87	2,500
3G1.5	13.633	22	19	80	2,500
3G2.5	8.179	30	26	82	2,500
4G1.5	13.633	22	19	80	2,500
4G2.5	8.179	30	26	82	2,500
4G4.0	5.074	40	34	84	2,500
4G6.0	3.382	51	43	87	2,500
5G1.5	13.633	22	19	80	2,500
5G2.5	8.179	30	26	82	2,500

– Current ratings apply at +25/+30 °C ambient in free air; apply standard derating factors for elevated ambient or drum coiling.

Standards and approvals

- ✓ EN 50525-2-21 AD8
- ✓ IEC 60364-7-702
- ✓ CE / RoHS

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/pbs-pool-chlorinated-water-resistant-permanent-submersion-swimming-pool-cable

Typical values for this cable type, based on EN 50525-2-21 AD8 / VDE 0285. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.