



Harsh

Environment

Cable Solutions

AmerCable's Gexol[®] Product vs. IEC Cables

As the new world economy brings more product choices make sure you're educated about product differences. The differences between AmerCable's premium, high performance Gexol-insulated marine cable product and overseas made product conforming to IEC shipboard cable standards is detailed below. Gexol is clearly a more reliable, safe, and proven product.

Construction Comparison	Marine Gexol-125 IEEE Std. 45 Type P UL 1309 Type X110	RFOB/TFOB IEC 60092-353, 375, 376 NEK 606 Types P8 and S5
Conductor	Tin coated flexible stranded Class C or D up to 10 AWG and Class I for larger sizes (similar to IEC 28 Class 5).	Tin coated coarse stranded Class 2 metric conductors meeting IEC 228. These conductors are much less flexible than those used in the Gexol product.
Insulation	Premium thermoset Gexol. Gexol is far superior in areas such as flame retardance, oil resistance and mechanical ruggedness.	Commercial grade thermoset EPR or XLPE. IEC/NEK does not require it to be of flame retardant grade.
Color Coding	Standard U.S. color sequences.	Different IEC color sequences.
Binder tape	2 mil clear mylar.	2 mil clear mylar.
Inner Covering	Highly mud resistant thermoset polychloroprene. U.S. standards require the inner covering to be of the same material as the outer sheath.	Thermoplastic halogen-free material that does not have the mud resistance properties that polychloroprene has.
Armor	Braided tin coated copper or bronze.	Braided tin coated copper.
Outer Sheath	Mud resistant thermoset polychloroprene.	Mud resistant thermoset material.

Performance Summary	Marine Gexol-125	RFOB/TFOB IEC 60092-353, 375, 376 NEK 606 Types P8 and S5
Product Advantages	Much more flexible, higher temperature rating (100/110°C), and more mechanically rugged. Product carries many world class approvals such as UL Marine Shipboard Cable, IEEE 45 Type P, Lloyd's Register of Shipping, Norwegian Directorate for Product and Electrical Safety (NVE), ABS, DNV, Transport Canada, and U.S. Coast Guard.	None
Product Disadvantages	None	Not intended for flexing applications, lower temperature rating, and less mechanically rugged.



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600/1000V Insulation Thicknesses (mils)			
Conductor Size	IEEE 45/UL 1309	IEC 92-353	Reduction
16 (1.5mm ²)	30	28	8%
14 (2.5mm ²)	30	28	8%
12 (4mm ²)	30	28	8%
10 (6mm ²)	30	28	8%
8 (10mm ²)	45	28	39%
6 (16mm ²)	45	28	39%
4 (25mm ²)	45	35	22%
2 (35mm ²)	45	35	22%
1/0 (50mm ²)	55	39	29%
2/0 (70mm ²)	55	43	22%
3/0 (95mm ²)	55	43	22%
4/0 (120mm ²)	55	47	15%
313 (150mm ²)	65	55	15%
373 (185mm ²)	65	63	3%
444 (240mm ²)	65	67	-3%
597 (300mm ²)	80	71	11%

600/1000V Factory Test Voltages (kV)			
Conductor Size	IEEE 45/UL 1309	IEC 92-353	Reduction
16 (1.5mm ²)	1.5	3.5	-133%
14 (2.5mm ²)	3.5	3.5	0%
12 (4mm ²)	3.5	3.5	0%
10 (6mm ²)	3.5	3.5	0%
8 (10mm ²)	5.5	3.5	36%
6 (16mm ²)	5.5	3.5	36%
4 (25mm ²)	5.5	3.5	36%
2 (35mm ²)	5.5	3.5	36%
1/0 (50mm ²)	7.0	3.5	50%
2/0 (70mm ²)	7.0	3.5	50%
3/0 (95mm ²)	7.0	3.5	50%
4/0 (120mm ²)	7.0	3.5	50%
313 (150mm ²)	8.0	3.5	56%
373 (185mm ²)	8.0	3.5	56%
444 (240mm ²)	8.0	3.5	56%
597 (300mm ²)	10.0	3.5	65%

