



AISMALIBAR®

MAXIMUM EFFICIENCY FOR POWER LEDs



COBRITHERM®

EXTENDS LIFE AND INCREASES BRIGHTNESS

The field of illumination, nowadays under strong pressure to achieve a significant energetic reduction in accordance with environmental needs, has found in the LEDs (Light Emitting Diodes), the way to reach its objectives. The LED industry offers solutions both in public and consumer lighting, improving day by day these sources of illumination by offering more efficiency and durability.

The life and efficiency of a Led is consequence of a correct dissipation of the temperature generated by the emitter through the surface on which it is mounted, being, the capacity of dissipation of such emitter what allows us to achieve the maximum performance of the LED, keeping its temperature under 90°C to guarantee full luminosity and a long-lasting useful life, that can reach over 100.000 hours.

Today the use of LEDs of 4 or more Watts is frequent, when only a few years ago most of them were under 1W. Therefore, keeping the recommended temperature stable (approx <90°C) is fundamental to extend the useful life of the LEDs. Hence, the use of a support to mount the LEDs becomes the key factor to comply with the thermic, electric and mechanical demands of over 100.000 hours that the useful life of the LED can reach.



COBRITHERM ORIENTATIVE PRODUCT APPLICATIONS

COBRITHERM	Standard Construction (μ) Al / Dielectric / Cu	Proof Test	Orientative Applications
HTC - 2,2 W	1.500 / 130 / 70	3.000	High Power applications, DC Power converters HiPo LEDs > 4 W
AlCu-P 1,8 W	1.500 / 120 / 70	2.000	Medium Power applications, LEDs. Max. cost-effectiveness
AlCu-P G 1,3 W	1.500 / 125 / 70	1.000	Low Power applications, LEDs.
ALU 4	1.500 / 125 / 70		Low Power LED, low-cost.

100% GUARANTEED PROFF TEST

This is why all the IMS COBRITHERM family is subject and complies with the most rigorous demands in the life and continuous work temperature resistance tests, with the additional "PROOF TEST" guarantee for all our COBRITHERM. This means a 100% control of the dielectric strength of all our products.

Metal base industrial laminates:

UL APPROVED, QMTS FILE: E47820

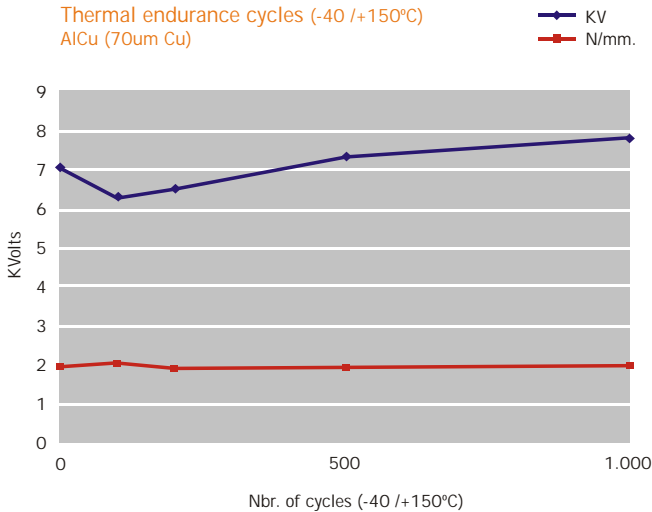
All our COBRITHERM products are UL, Lead Free and CE approved.



Mtl Dsg	Color	Metal	Dielectric		Flame Class	R.T.I.		H		Meets 746E DSR		
		Min Thk (mm)	Min Thk (mic)	Max Thk (mic)		Elec (°C)	Mech (°C)	H W I	H A I		V T R	C T I
Aluminium (Al) base with Epoxy (EP) dielectric, industrial laminates, furnished as sheets.												
COBRITHERM AlCu-P, COBRITHERM AlCu-P G, COBRITHERM HTC												
	NC	1,0	120	120	V-0	130	140	-	0	-	0	-

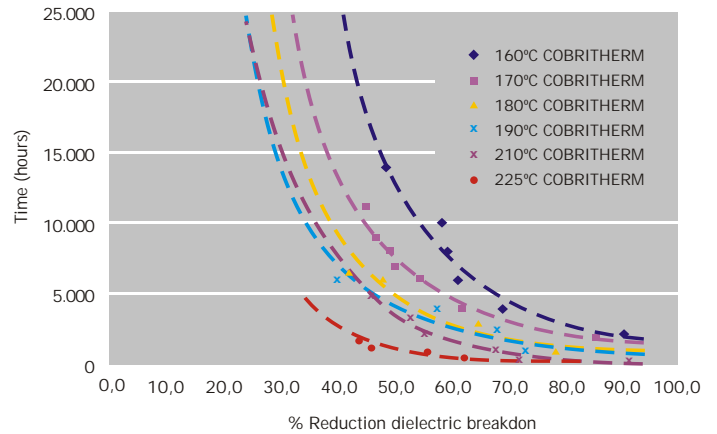
Extended life time by COBRITHERM. ENDURANCE TEST

Thermal endurance cycles (-40 /+150°C)
AlCu (70um Cu)



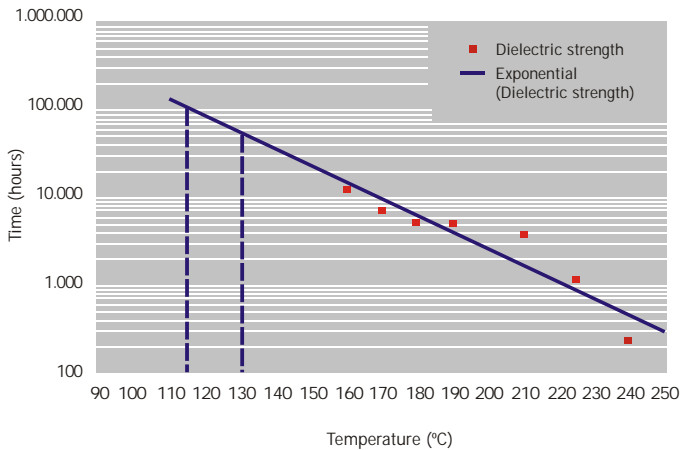
Adherence and dielectric breakdown are not affected by endurance thermal cycles from -40°C to +150°C.

Dielectric breakdown:
Evolution at several temperatures



Evolution of the decrease of dielectric strength at different temperatures. Tests done after more than 15.000 hours at 160°C present a loss of only 50% of the dielectric strength. Values extracted from tests carried out by UL to calculate RTI value (www.ul.com).

Dielectric strength



Projection at 100.000 hours and 60.000 hours of durability of the dielectric strength. Data extracted from the tests done by UL (Underwriters Laboratories) for the calculation of the electric RTI of COBRITHERM. Graphics obtained from UL tests.



COBRITHERM PRODUCT RANGE

COBRITHERM, in constant evolution and anticipating the needs of this market, offers a wide range of products to satisfy any possible need; from the most economic products for the low power line, to the highest range products, always maintaining the rigorous quality standards.


TYPE	HTC-(2W)	ALCUP	ALCUP-G	ALU 4
Dielectric Thickness (mm)	0,130	0,120	0,125	0,125
Thermal Conductivity, W / m.°K (Dielec.)	2,200	1,800	1,300	0,35
Thermal Impedance (EK): °K. m ² / W e/CT	0,000059	0,000067	0,000096	0,000357
Test DC Proof Test: V	3.000	2.000	1.000	
Breakdown AC: KV (AC 1 = DC 1,4)	8	7	6	>5
Time to blister at 288°C, floating in solder, sec.	>120	>120	>120	>60
Copper peel strength, after 20 sec at 288°C, N/MM (70 μ)	2,8	2,8	2,3	>1,5
UL (MOT)	150	150	130	
UL RTI: Elec / Mec	130 / 140	130 / 140	130 / 140	
Tg	90	90	90	130

AISMALIBAR®

C/ Bach, 2-B
Pol. Ind. Foinvasa
08110 Montcada i Reixac
(BARCELONA) SPAIN

Tel: +34 93 572 41 61
Fax: +34 93 572 41 65

e-mail: g.benmayor@benmayor.com
www.benmayor.com
www.aismalibar.com

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GABRIEL BENMAYOR S.A.- AISMALIBAR is environmentally friendly and committed to sustainable growth. Therefore, we utilize green energy in more than a 50% of the annual power consumption.