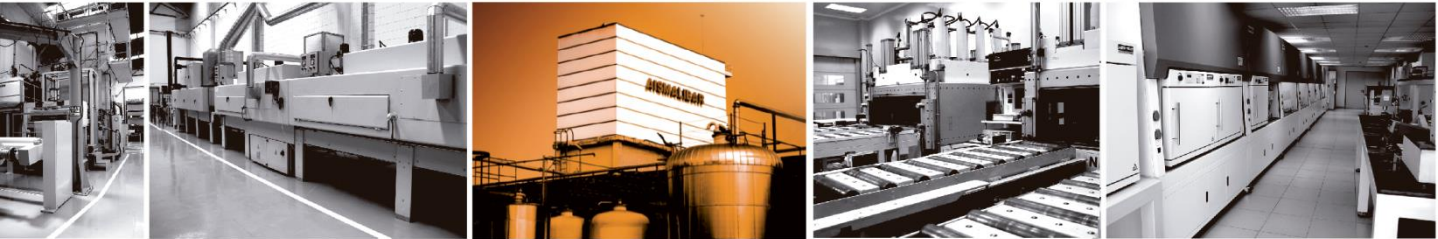


## FASTHERM. TECHNOLOGY BY AISMALIBAR

FASTHERM is a new technology developed by AISMALIBAR to achieve a faster thermal transition from the LED thermal pad into the heat sink. This superior thermal transition can be achieved by using the entire COBRITHERM HTC product range with either a Copper or Copper / Aluminum base.

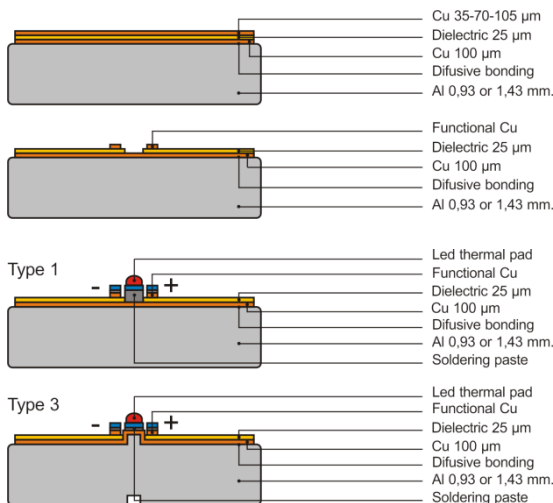
AISMALIBAR has developed a special laminate for Fastherm technology with a bimetal heat sink made with a thin layer of copper cladded onto an aluminum base. The aluminum layer possesses diffusive properties while the copper layer has a very thin dielectric for improving horizontal thermal dissipation. The bimetal also allows for solderability in surface mounting applications.

By using AISMALIBAR COBRITHERM HTC range together with FASTHERM technology LEDs operate at 30 to 50°C lower in temperature due to the direct thermal transition from the thermal pad to the heat sink. FASTHERM technology requires a very accurate and precise depth control to open the thermal pad foot print.

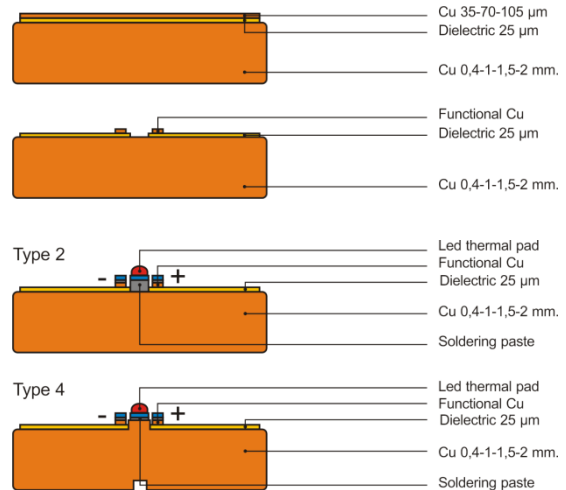


## COBRITHERM® HTC 2,2 W°K - 3,2 W°K

### Aluminum / Copper heat sink



### Copper heat sink



## THERMAL CONDUCTIVITY AND THERMAL IMPEDANCE

Type	Composition						Dielectric layer				IMS (Aluminium+dielectric+copper)				
	Aluminium		Copper		Tin		Thickness		Conductivity		Conductivity		Thermal impedance		
	mm	inch	mic	Onz	mic	Onz	mic	mil	W/mK	W/inchK	W/mK	W/inchK	Kcm <sup>2</sup> /W	Kinch <sup>2</sup> /W	°C/W
1	1,43	0,056	100	2	60	2	0	0	0,7	0,018	133,7	3,395	0,117	0,018	0,039
1	0,93	0,037	100	2	60	2	0	0	0,7	0,018	133,1	3,38	0,08	0,012	0,027
2	0	0	400	11	60	2	0	0	0,7	0,018	237,8	6,04	0,019	0,003	0,006
2	0	0	1000	29	60	2	0	0	0,7	0,018	303,5	7,708	0,035	0,005	0,012
2	0	0	1500	43	60	2	0	0	0,7	0,018	325,6	8,269	0,048	0,007	0,016
3	1,43	0,056	100	2	25	1	0	0	0,7	0,018	136,8	3,475	0,111	0,017	0,037
3	0,93	0,037	100	2	25	1	0	0	0,7	0,018	137,7	3,498	0,074	0,012	0,025
4	0	0	400	11	25	1	0	0	0,7	0,018	301	7,645	0,014	0,002	0,005
4	0	0	1000	29	25	1	0	0	0,7	0,018	345,1	8,764	0,03	0,005	0,01
4	0	0	1500	43	25	1	0	0	0,7	0,018	357,2	9,073	0,043	0,007	0,014