

TCP™ 300PS-09-02A is a Thermally Conductive Engineering Plastic developed for the housing design which requires high thermally conductivity and reduces the weight more than 30% comparing with the same aluminium devices.

Application

TCP™ 300PS-09-02A can be used in applications such as Heat Sinking Housing at LED-lit BLU in LCD/LED TV and LED-lit lamps such as MR16. Also it can replace



Features

- » Good thermal conductivity: **0.9W/mK**
- » Excellent thermal conductivity compared to normal engineering plastics
- » Lighter than normal Aluminum housing 30% in weight
- » Excellent mould ability in injection moulding
- » Much higher production yield than normal Aluminum Die Castin
- » Excellent flexibility in designing final products such as housings.
- » UL94 V-0 (Ready).

Typical Properties of TCP™ 300PS-09-02A

Items	Test method	Unit	Typical data
Physical Properties			
Material	*****	*****	nylon
Color	Visual	*****	Black
Melt index	GB/T 3682-2000	g/10min	64.85
Specific Gravity	GB/T 1033.1-2008	g/cm ³	1.7
Shrinkage	GB/T 17037.4-2003	%	0.3~0.6
Mechanical Properties			
Tensile Strength	GB/T 1040.2-2006	MPa	33.9
Flexural Strength	GB/T 9341-2008	MPa	41.9
Flexural Modulus	GB/T 9341-2008	MPa	9500
Charpy Impact Strength, Notched	GB/T 1843-2008	kJ/m ²	40.0
Electrical Properties			
Dielectric Breakdown Voltage	ASTM D149	VAC	>10000
Dielectric Constant, 1MHz	ASTM D150	*****	4.5
Volume Resistivity	ASTM D257	Ohm-meter	7.0 X 10 ¹²
Thermal Properties			
Heat Deflection Temperature	ASTM D648	°C	170
Thermal Conductivity Through Plane	ASTM E1461	W/m-K	0.9
Flame retardancy	Min. thick. 1.0mm	Class	V-0

*These are typical values and should not be used for establishing product specification. The properties may vary upon the machine process under use. For more information please contact Ziitek Tech directly.

Gap Fillers | Pouring sealant | Silicon tape | Thermally Conductive paste | Flake graphite | Thermally Conductive Insulators | Ceramic heat sinks | Thermally Conductive plastic | Thermally Conductive Adhesive Tapes

加拿大Canada

TEL: +001-604-2998559
E-mail: frances@ziitek.com.tw
[Http://www.thermazig.com](http://www.thermazig.com)

台灣Taiwan

TEL: +886-2-22771007
E-mail: frances@ziitek.com.tw
[Http://www.iitek.com.tw](http://www.iitek.com.tw)

东莞Dongguan

TEL: +86-769-38801208
E-mail: frances@ziitek.com.tw
[Http://www.ziitek.com.cn](http://www.ziitek.com.cn)

昆山Kunshan

TEL: +86-512-57816297
E-mail: kelvin@ziitek.com
[Http://www.ziitek.com.cn](http://www.ziitek.com.cn)

杭州Hangzhou

TEL: +86-571-63850366
E-mail: alex@ziitek.com
[Http://www.ziitek.com.cn](http://www.ziitek.com.cn)

长沙Changsha

TEL: +86-731-86949836
E-mail: jor@ziitek.com
[Http://www.ziitek.com.cn](http://www.ziitek.com.cn)

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TCP™300PS-09-02A Injection parameters		Value Range
Barrel Zone Temperature	One sect / °C	250–280°C
	Two sect / °C	260–290°C
	Three sect / °C	250–270°C
Mouth Temperature / °C		270–290°C
Melt Temperature / °C		270–290°C
Bake Temperature / °C		100–120°C 4H
Mould Temperature / °C		According to the machine tonnage
Injection Pressure / Bar		According to the machine tonnage
Injection Speed / mm/s		Medium Speed
Remarks: Data from the laboratory of the Division I ① above are for reference only, not as a product standard reference. ② The typical processing conditions according to different models, different mold and product requirements to make the appropriate adj		

Handling & Safety

TCP™300PS-09-02A should be used in accordance with good industrial practice. For more detailed information please contact Ziitek technical service

Supply Appearance And Standard Packing

TCP™300PS-09-02A is supplied in regular pellet form packaged in polyethylene bags. Net weight is 25kg per bag. For more information please contact us.



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加拿大Canada

TEL: +001-604-2998559
E-mail: frances@ziitek.com.tw
[Http://z/www.thermaziq.com](http://z/www.thermaziq.com)

台灣Taiwan

TEL: +886-2-22771007
E-mail: frances@ziitek.com.tw
[Http://www.ziitek.com.tw](http://www.ziitek.com.tw)

东莞Dongguan

TEL: +86-769-38801208
E-mail: frances@ziitek.com.cn
[Http://www.ziitek.com.cn](http://www.ziitek.com.cn)

昆山Kunshan

TEL: +86-512-57816297
E-mail: kelvin@ziitek.com
[Http://www.ziitek.com.cn](http://www.ziitek.com.cn)

杭州Hangzhou

TEL: +86-571-63850366
E-mail: alex@ziitek.com
[Http://www.ziitek.com.cn](http://www.ziitek.com.cn)

长沙Changsha

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E-mail: jor@ziitek.com
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