

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 | 75.8 |
| Flexural Strength | GB/T 9341-2008 | Mpa | 75.1 |
| Flexural Modulus | GB/T 9341-2008 | MPa | 9500 |
| Impact Strength, notched | GB/T 1843-2008 | kJ/m ² | 22.12 |
| 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

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Rev#: 0

| 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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