



Rev. 1

## HT5010 TECHNOLOGY PACKAGE

**Honeywell**

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# Thermal Conductive Gel HT5010

## OVERVIEW

Honeywell HT5010, is a soft, single part, dispensable thermal gap filler with a high thermal conductivity. Based on a novel polymer system, this material exhibits excellent reliability. A proprietary filler material combination provides high thermal conductivity of 5.0 W/m ·K suitable for high performance devices.

## BENEFITS AND FEATURES

- Low contact resistance
- Easy to dispense and rework
- High compressibility for low stress applications
- Long-term reliability
- Less oil separation
- Less pump out and cracking

## TYPICAL APPLICATIONS

- Consumer electronics
- Telecommunications equipment
- Automotive electronics
- Memory & Power Modules

## Storage & Use

Shelf Life 6 months at  $23 \pm 2^{\circ}\text{C}$

## Basic Properties

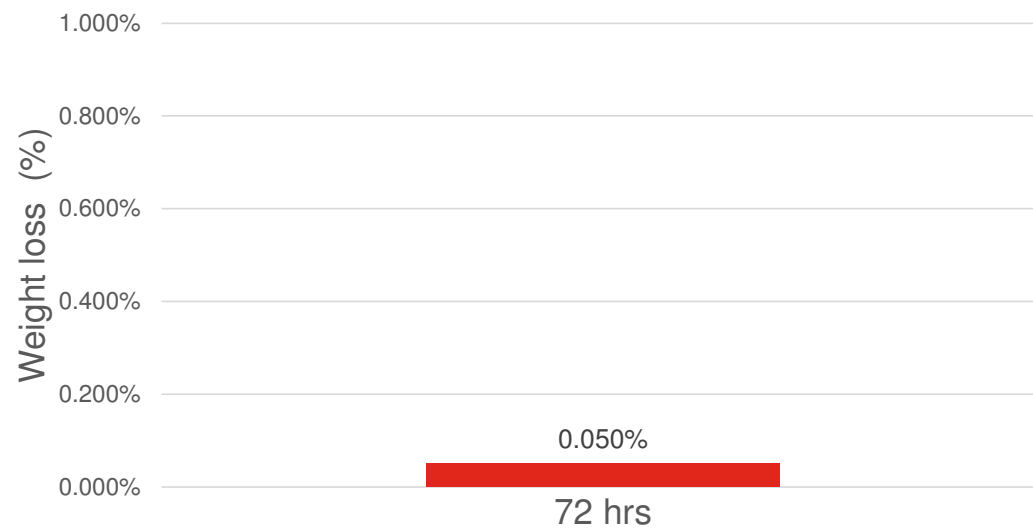
Property	HT5010
Thermal Conductivity (W/m·K) @ 1mm TH	5.2
Dispense Rate (g/min)  30cc EFD syringe with no tip attachment, 0.100' orifice @0.6MPa pressure	>14
BLT (mm)	0.14
Color	Grey

# Outgassing

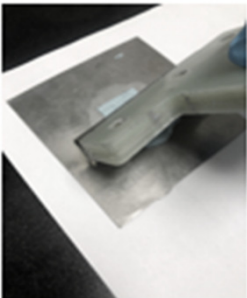


125°C Baking

## Out gassing

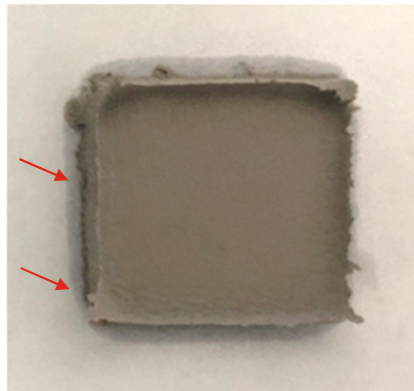


# Oil bleeding



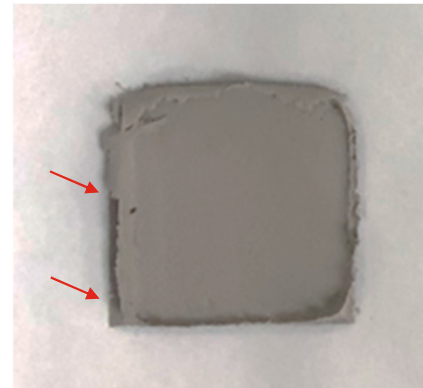
Sample size: 25.4X25.4X1.5mm  
Pasted on A4 paper

**Oil bleeding (RT)**



After 1 day

**Oil bleeding (80° C)**

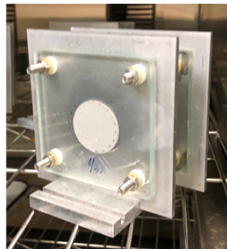


After 1 day

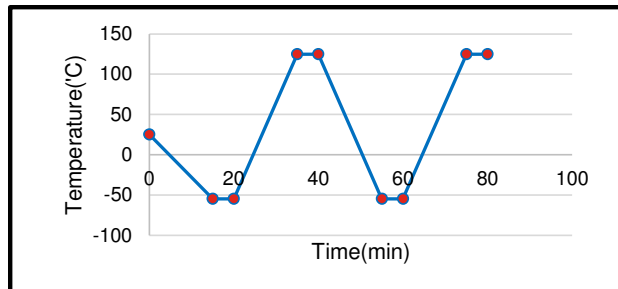
# Dripping & Cracking



TC chamber



Vertical Position



- Ramp time: 15mins
- Dwelling time @ -55°C and 125°C: 5mins
- Every cycle: 40mins

2 mm Gap



0.3 mm Gap



After 3wks

# Compressibility



## Test Condition

ASTM D575

Speed: 0.6 mm/s

Sample thickness: 1mm

Contact Area: 1 in.<sup>2</sup>

HT5010 Compression-Deflection

