



# Apex Microtechnology Materials Substance Report

**Model:** MP400

**Print Time:** 9/19/2013 10:20:23 AM

**RoHS Compliant:** Yes

**Lead Free:** No

## **Bonding Island Substances**

Copper  
Tin

## **Total Weight (g)**

5.40E-3  
1.80E-3

## **Capacitor Substances**

Barium Titanate  
Bismuth Titanate  
Calcium Zirconate  
Magnesium Oxide  
Nickel  
Palladium  
Silica  
Silver  
Tin

## **Total Weight (g)**

4.36E-1  
2.56E-2  
2.56E-2  
2.56E-2  
5.13E-3  
4.82E-3  
2.56E-2  
9.13E-2  
1.77E-3



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<b>Die Substances</b>	<b>Total Weight (g)</b>
Alumina	1.64E-1
Aluminum	6.00E-4
Antimony Trioxide	1.50E-2
Barium Oxide	2.32E-5
Barium Titanate	1.47E-6
Bismuth Trioxide	2.47E-5
Boron Oxide	2.47E-5
Carbon	1.30E-3
Carbon Black	1.91E-4
Catalyst	4.29E-3
Chromium	1.96E-5
Cobalt	1.19E-5
Copper	4.26E+0
Curing Agent	6.00E-5
Doped Silicon	5.38E-2
Epoxy	3.29E-3
Epoxy Resins	2.38E-1
Gold	2.31E-3
Iron	2.92E+0
Isobutyrate	2.85E-3
Lead	3.19E-3
Lead Oxide	3.19E-4
Magnesium Oxide	3.66E-4
Manganese	1.19E-5
Metal Hydroxide	1.11E-3
Nickel	2.04E-2
Palladium	3.52E-4
Phosphoric Acid	9.18E-5
Phosphorous	1.31E-3
Release Agent	8.00E-3
Ruthenium Dioxide	3.99E-4
Silica	1.01E+0
Silicon	9.60E-3
Silicone	2.60E-3
Silver	1.54E-2
Terpineol	1.02E-4



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Tin	5.05E-2
Wire Enamel	1.14E-2
Wire Insulation	2.65E-2
Zinc	3.15E-1

**Encapsulant Substances**

**Total Weight (g)**

NONE

N/A

**Frame Substances**

**Total Weight (g)**

NONE

N/A

**Header Substances**

**Total Weight (g)**

NONE

N/A

**Lead Frame Substances**

**Total Weight (g)**

NONE

N/A

**Lid Substances**

**Total Weight (g)**

NONE

N/A

**Pin Substances**

**Total Weight (g)**

Copper	1.51E+0
Liquid Crystal Polymer	8.34E-1
Nickel	1.27E-2
Phosphorous	3.17E-3
Tin	1.03E-1

**Silicone Substances**

**Total Weight (g)**

NONE

N/A

**Solder Substances**

**Total Weight (g)**

NONE

N/A



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**Substrate Substances**

	<b>Total Weight (g)</b>
Alumina	2.92E-1
Aluminum	1.34E+1
Copper	6.87E-1
Epoxy	2.49E-1
Polyimide	5.42E-1
Silica	1.81E-3
Silver	1.14E-2
Tin	2.74E-1

**Thickfilm Substances**

	<b>Total Weight (g)</b>
NONE	N/A

**Wire Substances**

	<b>Total Weight (g)</b>
NONE	N/A



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## Substances Present in This Model

Substance	Total Weight (g)
Alumina	4.56E-1
Aluminum	1.34E+1
Antimony Trioxide	1.50E-2
Barium Oxide	2.32E-5
Barium Titanate	4.36E-1
Bismuth Titanate	2.56E-2
Bismuth Trioxide	2.47E-5
Boron Oxide	2.47E-5
Calcium Zirconate	2.56E-2
Carbon	1.30E-3
Carbon Black	1.91E-4
Catalyst	4.29E-3
Chromium	1.96E-5
Cobalt	1.19E-5
Copper	6.46E+0
Curing Agent	6.00E-5
Doped Silicon	5.38E-2
Epoxy	2.52E-1
Epoxy Resins	2.38E-1
Gold	2.31E-3
Iron	2.92E+0
Isobutyrate	2.85E-3
Lead	3.19E-3
Lead Oxide	3.19E-4
Liquid Crystal Polymer	8.34E-1
Magnesium Oxide	2.60E-2
Manganese	1.19E-5
Metal Hydroxide	1.11E-3
Nickel	3.82E-2
Palladium	5.17E-3
Phosphoric Acid	9.18E-5
Phosphorous	4.48E-3
Polyimide	5.42E-1
Release Agent	8.00E-3
Ruthenium Dioxide	3.99E-4



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## Substances Present in This Model

Substance	Total Weight (g)
Silica	1.04E+0
Silicon	9.60E-3
Silicone	2.60E-3
Silver	1.18E-1
Terpineol	1.02E-4
Tin	4.32E-1
Wire Enamel	1.14E-2
Wire Insulation	2.65E-2
Zinc	3.15E-1

**Sum of All Substances Present in This Model (g)** 2.77E+1