



Integrated Device Technology, Inc.
2975 Stender Way, Santa Clara, CA - 95054

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **G-0203-05** DATE: 3/29/2002

Product Affected: All applicable plastic package
(except BGA) families

Date Effective: 6/28/2002

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark
☐ Back Mark
☐ Date Code
☒ Other Alpha suffix "F" in assembly lot number

Contact: Geoffrey Cortes

Title: Manager, Corporate Quality & Reliability

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Attachment: ☒ Yes ☐ No
Sumitomo material datasheet

Samples: Contact the local IDT sales representative

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
☐ Wafer Fabrication Process
☐ Assembly Process
☐ Equipment
☒ Material To qualify new mold compound, EME-6600H manufactured by Sumitomo. Once qualified, IDT will add this as a qualified mold compound on all applicable plastic package (except BGA) families.
☐ Testing
☐ Manufacturing Site
☐ Data Sheet
☐ Other

RELIABILITY/QUALIFICATION SUMMARY:

Qualification testing will verify that there is no change to the product reliability. Qualification data is available upon request.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: _____

☐ **Approval for shipments prior to effective date.**

Name/Date: _____

E-Mail Address: _____

Title: _____

Phone# /Fax# : _____

CUSTOMER COMMENTS: _____

IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: _____

DATE: _____



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ATTACHMENT - PCN #: G-0203-05

PCN Type: To qualify new mold compound from Sumitomo EME-6600H.

Data Sheet Change: No

Detail Of Change: This change will be implemented on all applicable plastic package (except BGA) families.

Description	From	To
Mold Compound	Sumitomo 6300 Series	Sumitomo EME-6600H

Conversion schedule (Estimated):

Please contact your local field sales representative for sample availability and production shipments.



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Qualification Plan: Following reliability tests will be performed per package family and the expected completion date is June 28, 2002. Qualification data is available upon request.

	Test Methods	Sample size /# Fails
Highly Accelerated Stress Test (HAST) (100 Hrs, @130°C/85%RH,Static Bias)	EIA/JESD22-A110	45/0
Temperature Cycling, (-65°C to +150°C, 500 cyc)	MIL-STD-883, Method 1010	45/0
Life Test, (+125°C, 1000 hrs)	MIL-STD-883, Method 1005	77/0
Hi Temp Bake, (+150°C, 1000 hrs)	MIL-STD-883, Method 1008	77/0
Auto Clave (SPP), (168Hrs, @ 2ATM, 121°C)	EIA/JESD22-A102	45/0
Package Moisture Characterization (Note 1)	JEDEC J-STD-20	22/0
Internal Visual Inspection	MIL-STD-883, Method 2010	5/0
External Visual Inspection	MIL-STD-883, Method 2009	25/0
S.A.T.	JEDEC J-STD-035	10/0
X-ray Examination	Per IDT specification	45/0
Bond Pull Test	MIL-STD-883, Method 2011	5/0
Solderability Test	MIL-STD-883, Method 2003	5/0
Bake & Ball Shear Test	EIA/JESD22-B116	5/0
Physical Dimension	MIL-STD-883, Method 2016	5/0
Lead Integrity Test	MIL-STD-883, Method 2004	3/0
Resistance to Solvents	MIL-STD-883, Method 2015	3/0

Note 1: Moisture Characterization will confirm that there is no change to the Moisture Sensitivity Level.

SUMITOMO BAKELITE

SUMIKON[®]

EME-6600H

DCPD RESIN BASE
VERY LOW STRESS
NON/SHORT PMC
HIGH RELIABILITY

EME-6600H

TYPICAL PROPERTIES:

ITEM	TEST METHOD	UNIT	VALUES
SPIRAL FLOW	SB-U-03-003	cm	90
GEL TIME (at 175°C)	SB-U-03-005	sec	30
THERMAL EXPANSION α_1	SB-U-02-002	$\times 10^{-5} 1/^\circ\text{C}$	0.8
THERMAL EXPANSION α_2	SB-U-02-002	$\times 10^{-5} 1/^\circ\text{C}$	3.4
Tg	SB-U-02-002	°C	150
THERMAL CONDUCTIVITY	SB-U-02-004	W/m $\cdot$ °C	92×10^{-2}
FLEXURAL STRENGTH	SB-U-01-001	N/mm ²	
(at 25°C)			170
(at 240°C)			22
FLEXURAL MODULUS	SB-U-01-002	$\times 10^2$ N/mm ²	
(at 25°C)			270
(at 240°C)			9.5
SPECIFIC GRAVITY	SB-U-03-018	-----	2.01
VOLUME RESISTIVITY	SB-U-00-004	Ω - cm	1.0×10^{13}
(at 150°C)			
UL FLAME CLASS	SB-U-03-003	UL-94	V-0
WATER ABSORPTION	SB-U-03-002	% weight gain	0.12
(boiling, 24 h)			
EXTRACTED Na ⁺	SB-U-04-043	ppm	1
EXTRACTED Cl ⁻	SB-U-04-043	ppm	5

TYPICAL, NOT GUARANTEED PROPERTIES

MOLDING AND POST MOLD CURE CONDITIONS:

	STANDARD	RANGE
TRANSFER PRESSURE	85×10^6 Pa	$70-120 \times 10^6$ Pa
MOLD TEMPERATURE	175°C	165-180°C
CURE TIME (C or A)#	C/100 sec	80-120 sec
POST-MOLD CURE TEMP	175°C	170-180°C
POST-MOLD CURE TIME	2 h	0-8 h

#Conventional or Auto

rev. Nov.'00

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