SUPER DRY® Totech EU®

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Reference table of Drying

Package Body	Level	Bake @ 60 °C + 5/-0 °C ≤1% RH		Bake @ 40 °C + 5/-0 °C ≤1% RH		Bake @ 25 °C + 5/-0 °C ≤1% RH		Bake @ 40 °C + 5/-0 °C ≤5% RH	
		Exceeding Floor Life by > 72 h	Exceeding Floor Life by < 72 h	Exceeding Floor Life by > 72 h	Exceeding Floor Life by < 72 h	Exceeding Floor Life by > 72 h	Exceeding Floor Life by < 72 h	Exceeding Floor Life by > 72 h	Exceeding Floor Life by < 72 h
	2	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)
	2a	1 hour	1 hour	3 hours	2 hour	9 hours	6 hour	12 hours	8 hours
	3	1 hour	1 hour	6 hours	2 hour	18 hours	6 hour	22 hours	8 hours
Thickness	4	1 hour	1 hour	6 hours	2 hour	18 hours	6 hour	22 hours	8 hours
< 0.5 mm	5	1 hour	1 hour	6 hours	2 hour	18 hours	6 hour	23 hours	8 hours
(see Note 5)	5a	2 hour	1 hour	7 hours	2 hour	21 hours	6 hour	26 hours	8 hours
	2	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)
	2s	6 hours	5 hours	1 day	18 hours	3 day	2 days	4 days	3 days
Thickness	3	6 hours	5 hours	1 day	18 hours	3 day	2 days	4 days	3 days
> 0.5 mm	4	6 hours	5 hours	1 day	18 hours	3 day	2 days	4 days	3 days
≤0.8 mm	5	6 hours	5 hours	1 day	18 hours	3 day	2 days	4 days	3 days
(see Note 5)	5a	6 hours	5 hours	1 day	18 hours	3 day	2 days	4 days	3 days
	2	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)	Not Required (see Note 4)
	2a	12 hours	11 hours	2 days	2 days	6 days	5 days	8 days	7 days
Thickness	3	12 hours	11 hours	2 days	2 days	6 days	5 days	8 days	7 days
> 0.8 mm	4	15 hours	11 hours	3 days	2 days	9 days	6 days	10 days	7 days
≤1.4 mm	5	17 hours	11 hours	3 days	2 days	9 days	6 days	11 days	7 days
(see Note 5)	5a	18 hours	11 hours	3 days	2 days	9 days	6 days	12 days	7 days
	2	38 hours	30 hours	6 days	5 days	18 days	15 days	25 days	20 days
	2a	2 days	33 hours	7 days	6 days	21 days	18 days	29 days	22 days
Thickness	3	2 days	33 hours	9 days	6 days	27 days	20 days	37 days	23 days
> 1.4 mm	4	3 days	2 days	12 days	7 days	36 days	22 days	47 days	28 days
≤2.0 mm	5	4 days	3 days	14 days	9 days	42 days	27 days	57 days	35 days
(see Note 5)	5a	5 days	4 days	20 days	14 days	60 days	42 days	79 days	56 days
	2	5 days	4 days	20 days	17 days	60 days	50 days	79 days	67 days
	2a	5 days	4 days	20 days	17 days	60 days	50 days	79 days	67 days
Thickness	3	5 days	4 days	20 days	17 days	60 days	50 days	79 days	67 days
> 2.0 mm	4	5 days	4 days	20 days	17 days	60 days	50 days	79 days	67 days
≤4.5 mm	5	5 days	4 days	20 days	17 days	60 days	50 days	79 days	67 days
(see Note 5)	5a	5 days	4 days	20 days	17 days	60 days	50 days	79 days	67 days
Exception for BGA package > 17 mm x 17 mm or any stacked die package	2 -5a	64 days (See Note 2 and Note 5	As above per package thickness and moisture level	Not applicable	As above per package thickness and moisture level	Not applicable	As above per package thickness and moisture level	Not applicable	As above per package thickness and moisture level

Note 1: Table 4-1is based on worst-case molded lead frame SMD packages. Users may reduce the actual bake time if technically justified (e.g., absorption/ desorption data, etc.). In most cases it is applicable to other non-hermetic surface mount SMD packages. If parts have been exposed to > 60% RH it may be necessary to increase the bake time by tracking desorption data to insure parts are " dry" .

Note 2: For BGA packages > 17 mm x17 mm, that do not have internal planes that block the moisture diffusion path in the substrate, may use bake times based on the thickness & moisture level portion of the table.

Note 3: If baking of packages > 4.5 mm thick is required see appendix B.

Note 4: Baking not required if Floor Life exposure is limited to < 30C & < 60%RH for thin (< 14 mm) MSL2 devices. This is due to the moisture diffusion behavior of the thin devices, which were fully saturated after the absorption at MSL 2 (168 hours @85C/60%RH).

Note 5: The bake times specified are conservative for packages without blocking planes or stacked die. For a stacked die or BGA package with internal planes that impede moisture diffusion the actual bake time may be long

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