

PROPERTIES	OSP	HAL	IMMERSION NI/AU	IMMERSION AG	IMMERSION SN	IMMERSION NI/PD/AU	THICK GOLD
<b>PRODUCTION</b>	<b>1</b>	<b>2</b>	<b>3</b>			<b>4</b>	
PROCESS EFFORT	Low	Medium	Medium	Medium	Medium	Medium	High
PLANARITY	Yes	No	Yes	Yes	Yes	Yes	Yes
THICKNESS INDICATION	0,2µm	3-25µm	Ni 3-5µm Au 0,05µm	Ag 0,125 – 0,65µm	1µm	Ni 3-5µm Pd 0,2-0,5µm Au 0,05µm	Au 0,7-0,9µm
<b>APPLICATION</b>							
RIGID	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FLEX	Yes	Yes	Restricted <b>5</b>	Yes	Yes	Restricted <b>5</b>	Restricted <b>5</b>
FLEX-RIGID	Not preferred	Yes	Yes	Yes	Yes	Yes	Yes
WIRE BONDING	No	No	Yes	No	No	Yes	Yes
PRESS FIT	Yes	Yes	Restricted <b>6</b>	Yes	Yes	Restricted <b>6</b>	Restricted <b>6</b>
FINE PITCH	Yes	Not preferred	Yes	Yes	yes	Yes	Yes
HDI - BGA	Yes	Not preferred	Yes	Yes	Yes	Yes	Yes
MULTIPLE SOLDERABILITY	Restricted	Yes	Yes	Yes	yes	Yes	Yes
COST	Low	Low	Moderate	Low	Low	High	High
SHELF LIFE <b>7</b>	3 months	12 months	12 months	6 months	6 months	12 months	12 months
REFRESH OF SURFACE	Yes	Yes	No	No	Yes	No	No
HANDLING ASSEMBLY				Gloves preferred	Gloves preferred		

**1** **OSP**  
Organic Surface Protection (ENTEK)

**2** **HAL**  
Hot Air Levelling, Pb Free (Optional non PB Free HAL), not preferred for fine pitch due to thickness variation

**3** **IMMERSION NI/AU**  
Immersion Nickel Gold, ENIG

**4** **IMMERSION NI PD/AU**  
Immersion Nickel Palladium Gold, ENEPIG

**5** **RESTRICTED**  
Stiffener to be used to avoid excessive stress on the surface finish due to bending

**6** **RESTRICTED**  
Only in combination with suitable connector, check connector documentation

**7** **SHELF LIFE**  
Storage under the following conditions assumed: Original sealed packaging; Temperature 20-24°C, Relative Humidity 30-40%