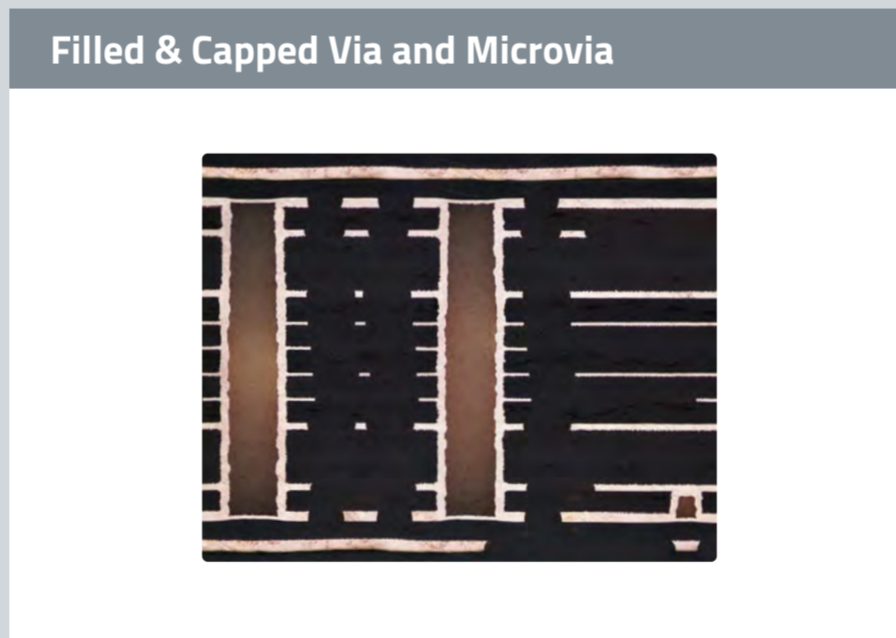
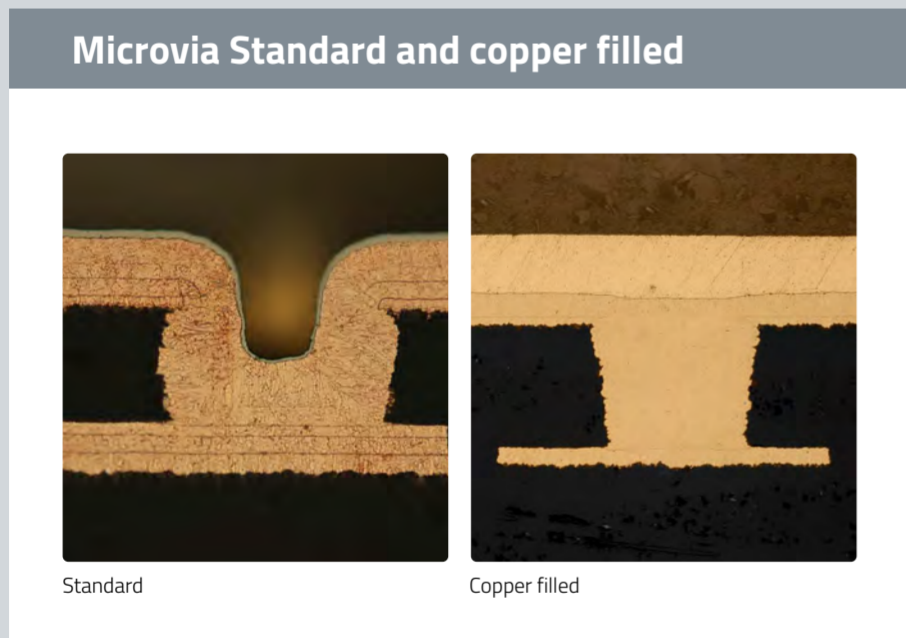
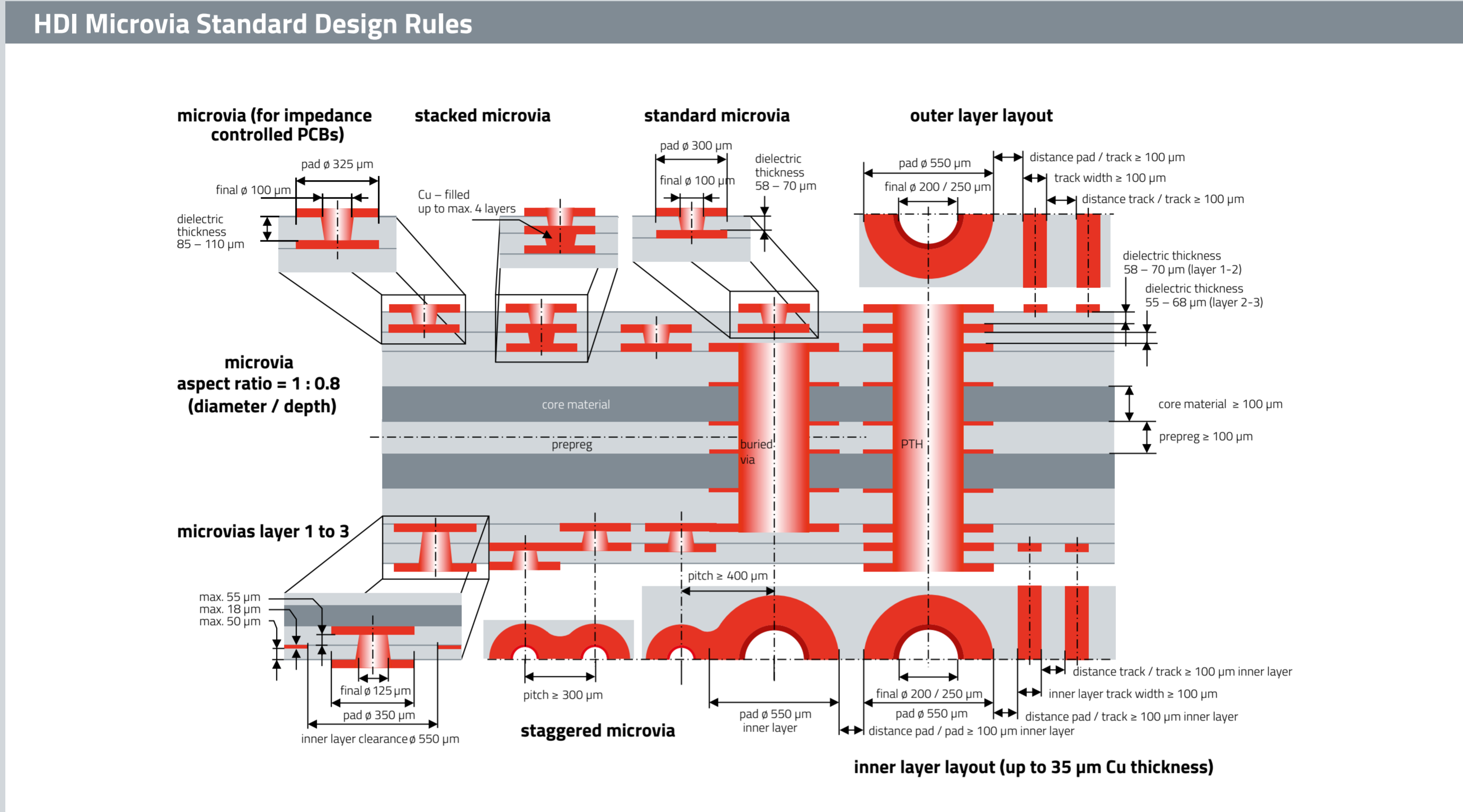


HDI MICROVIA



BGA 0.80 mm pitch

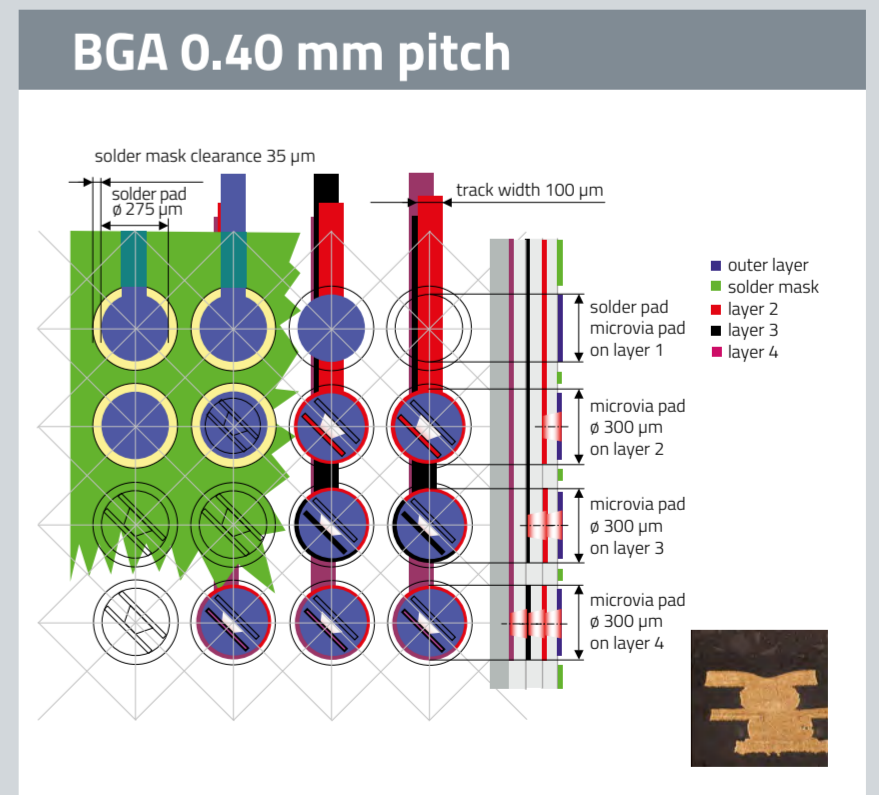
Var. 1: Dogbone with through-hole vias
 Var. 2: Dogbone with microvias
 Var. 3: Microvia in pad

	Var. 1	Var. 2	Var. 3
BGA solder pad	max. 400 μm	—	max. 500 μm
Solder mask clearance	50 μm	\geq 50 μm	50 μm
Via pad size BGA area	500 μm	—	—
Microvia pad outer layers	—	300 / 350 μm	300 / 350 μm
Microvia pad inner layers	—	300 / 350 μm	300 / 350 μm
Track width / spacing outer layers	\geq 100 μm	\geq 100 μm	\geq 100 μm
Track width / spacing inner layers	\geq 100 μm	\geq 100 μm	\geq 100 μm

BGA 0.50 mm pitch

Var. 1: Via in pad Var. 2: Dogbone Var. 3: Via in pad

	Var. 1	Var. 2	Var. 3
BGA solder pad	300 – 330 μm	240 μm	275 μm
Solder mask clearance	50 μm	40 μm	35 μm
Microvia pad outer layers	\geq 300 μm	275 μm	275 μm
Microvia pad inner layers	275 μm	275 μm	275 μm
Track width / spacing outer layers	\geq 100 μm	80 / 90 μm	75 μm
Track width / spacing inner layers	75 μm	75 μm	75 μm



**MORE SUPPORT
 THAN YOU EXPECT**

Which base material qualities are used in a PCB can be seen from the stackup. Würth Elektronik offers cost- and production-optimised standard stackups on its website. Here you can also find all standards as digital stackup files for import into your EDA software.

Do you have questions about fabrication data, tolerances, test documentation or packaging? In our Technical Delivery Specification for printed circuit boards (TDS) you will find our standards and recommendations for smooth and effective cooperation.