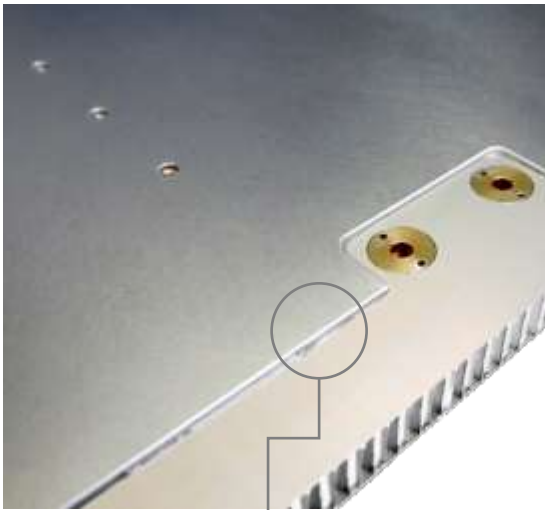


PANELS DOUBLERS



External Doubler

DOUBLERS

Doublers are extra skin sheets bonded with the nominal skin in case a local structural reinforcement is needed or for thermal purposes.

Doublers can be:

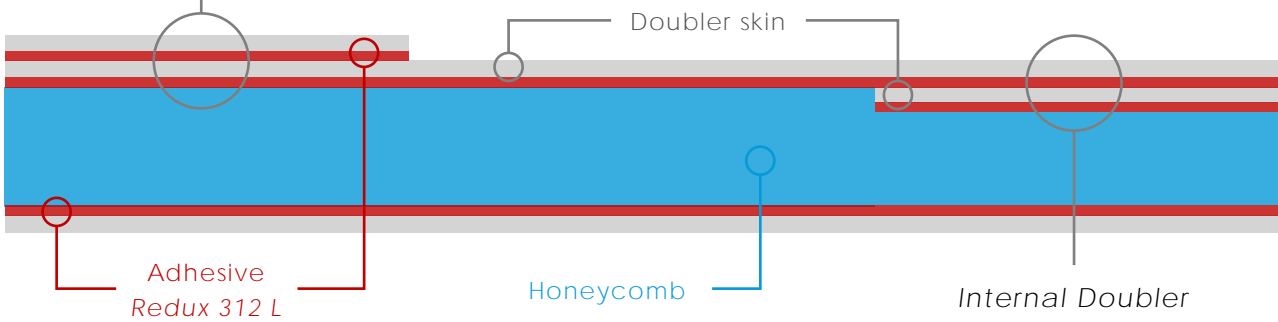
- External (thermal or structural)
- Internal (structural)

External doublers are usually selected as first choice because their installation is less complex. However APCO Technologies is qualified for and has heritage with the application of internal doublers.

Doublers are checked by ultrasound controls.

Materials Used

Doublers Material (Alu/Alu)		Doublers Material (CFRP/Alu)	Adhesive
Structural	Thermal	Structural	
Al 2024 T81	Al 1050	M18 / M55J	Redux 312 L



Sentinel - 5 P Panel
External thermal doubler



Sentinel - 2 MSI Structure - External structural doubler