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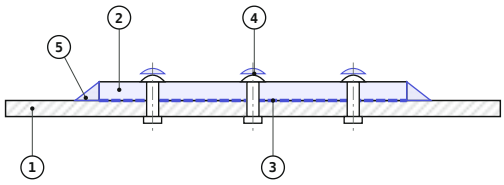
Sealing a Repair: Fay Surface, Wet Fasteners and Fillet

Faying · wet fasteners · fillet

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

SECTION A–A

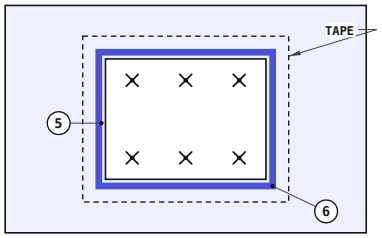
DOUBLER ON SKIN · SEALED AGAINST MOISTURE



RIVETS WET: SEALANT SQUEEZES OUT OF EVERY HOLE AND EDGE

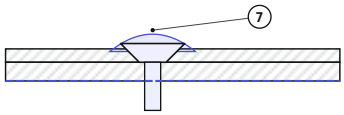
PLAN

TAPED GAP ROUND THE PATCH



DETAIL B

COUNTERSUNK FASTENER · SEALANT FIRST



BEAD IN THE COUNTERSINK; SET AND TORQUE IN THE WORKING TIME

ORDER OF WORK

DOUBLER REPAIR · AC 43.13-1B PAR. 6-134

1. CLEAN · CONVERSION COAT · PRIME HOLES
2. SEALANT OVER THE COVERED AREA
3. INSTALL FASTENERS WET
4. REMOVE EXCESS · FILLET AT THE EDGE
5. CURE · THEN PAINT

PARTS LIST

#	PART	RULE	SOURCE
1	Skin	After corrosion removal, conversion coat and fill water traps	AC 43.13-1B 6-134a
2	Doubler	Alclad if available; anodized or conversion coated after all cutting	AC 6-134d
3	Faying seal	Sealing compound over the covered area, thick enough to fill voids	AC 6-134f
4	Wet fasteners	Squeeze-out seals holes, fasteners and every edge of the plate	AC 6-134g
5	Fillet bead	After removing the excess, round the repair edge; cure, then paint	AC 6-134h
6	Tape gap	Tape parallel to the edge, small gap, fill it with sealant	H-8083-31A p. 7-45
7	Countersink	Bead in the countersink; set and torque within the working time	AC 6-135b(1)

NOTES

1. Dimensions in inches. Do not scale: the SRM sets the values.
2. For reference. The applicable manual always governs.
3. Based on AC 43.13-1B ch. 6.

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point. — Structural repair reference

TITLE			
Fay and fillet sealing			
DRAWING NO.	REV	SCALE	SHEET
TAP-DWG-036	A	NTS	1 OF 1
APPLIES TO			
Metal repairs			

DO NOT SCALE DRAWING

After AC 43.13-1B pars. 6-134 and 6-135 and FAA-H-8083-31A pp. 4-101, 4-108 and 7-45. Typical only: the SRM names the sealant, the thickness and the cure.

What gets sealant, and when

Place	What the sources say	Source
Faying surfaces	Apply sealing compound under the doubler thick enough to fill all voids. The Handbook: a thin layer on the doubler before cleco-ing it down	AC 6-134f; HB p. 4-101
Fasteners	Install rivets wet with sealant; enough squeezes out of the holes to seal fasteners and every edge of the plate. Dip all fasteners in sealant	AC 6-134g; HB p. 4-101
Edge of the repair	Remove the excess, then run a fillet bead round the edge. Paint after it cures	AC 6-134h
Countersinks	Start the fastener, put a bead of sealant in the countersink, set and torque within the sealant's working time (preferred method)	AC 6-135b(1)
Patch periphery	Mask round the patch, leave a small gap from the edge, and seal into that gap	HB p. 7-45

Key points

- **Seal the faying surface**, not just the edge.
- **Install fasteners wet** in the sealant's working time.
- **Fillet bead** round the edge after removing excess; cure, then paint.
- **Non-corrosive sealant** between dissimilar metals.
- **Product, class and cure** come from the SRM and the data sheet.

Step by step

1. Clean; conversion coat; prime the holes.
2. Spread sealant on the covered area.
3. Fit the doubler; install fasteners wet.
4. Remove excess; tool the fillet.
5. Cure, then paint.

SOURCES · FAA AC 43.13-1B CHG 1, Chapter 6 · FAA-H-8083-31A, AMT Handbook — Airframe, Volume 1

SCAN · OPEN THIS GUIDE
theaviationpoint.com/sheet-metal/sealing/

Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.

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