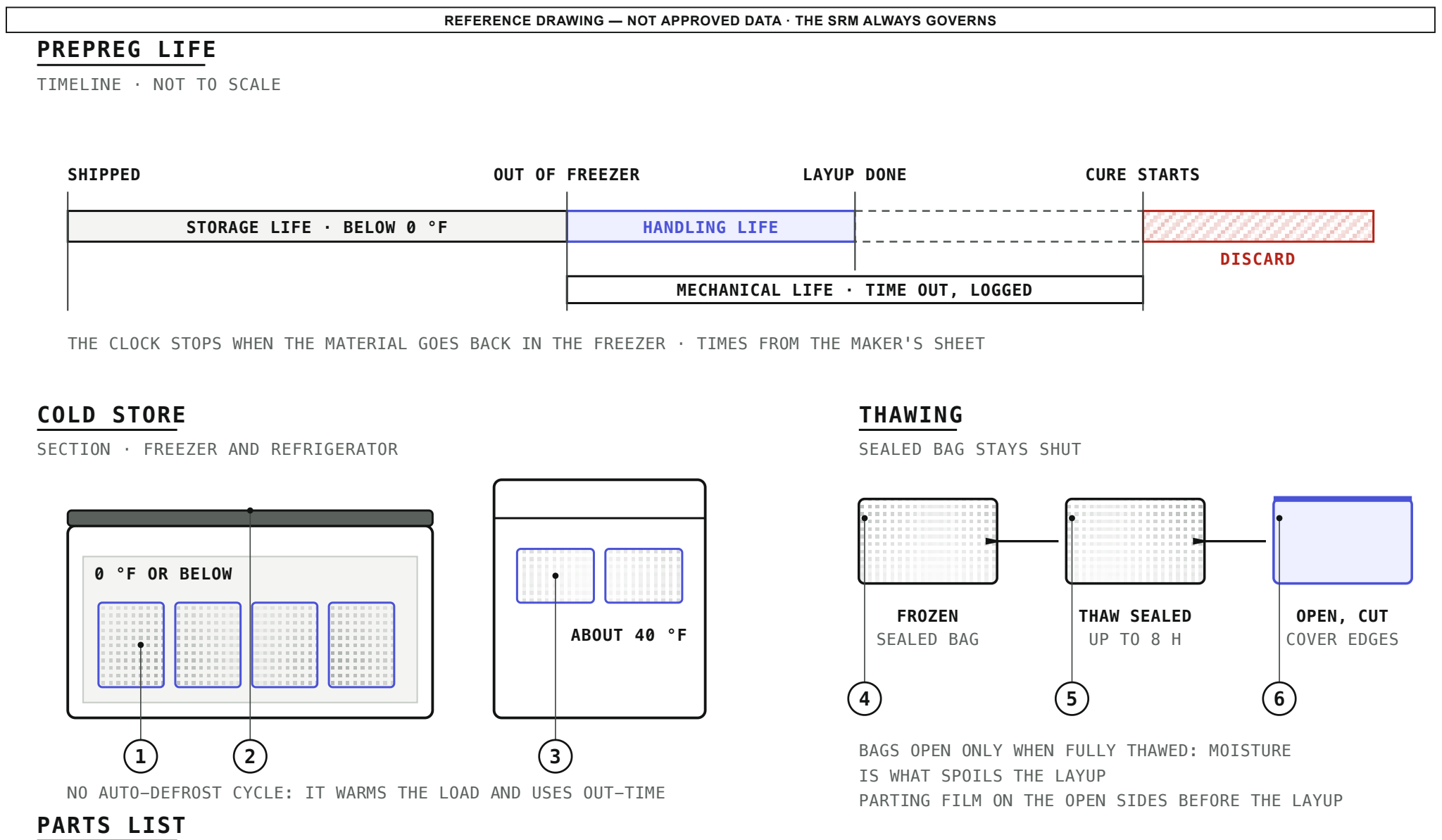
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The Aviation Point.

Storing and Handling Composite Materials: Freezer, Out-Time and Thawing

What is stored where · the three lives · thaw and log



#	ITEM	STORE OR DO	SOURCE
1	Prepreg, kits in moisture-proof bags	Below 0 °F	pp. 7-26, 7-27
2	Chest or walk-in freezer	Manual defrost only	p. 7-26
3	Laminating and paste adhesives	About 40 °F (see label)	p. 7-26
4	Frozen bag	Do not open frozen	p. 7-26
5	Thawing	Sealed, up to 8 h a roll	p. 7-26
6	Layup	Parting film, clean area	p. 7-27

NOTES
1. Dimensions in inches. Do not scale: the SRM sets the values.
2. For reference. The applicable manual always governs.
3. Based on FAA-H-8083-31B ch. 7.

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point. Structural repair reference

TITLE			
Storing and handling			
DRAWING NO. TAP-DWG-029	REV A	SCALE NTS	SHEET 1 OF 1
APPLIES TO Prepreg and adhesives			

DO NOT SCALE DRAWING

Life timeline, cold store, thawing sequence and parts list, after FAA-H-8083-31B pp. 7-26 and 7-27 and figures 7-44 and 7-45.

What is stored where

Material	Store	Notes
Prepreg	Freezer, below 0 °F	Sealed, moisture-proof bag; a roll can take 8 hours to thaw
Film adhesive, foaming adhesive	Freezer, like prepreg	Limited storage life; ship on dry ice
Paste adhesive	Room temperature	Long shelf life; the handbook also lists refrigerators near 40 °F for laminating and paste adhesives. Follow the label
Epoxy resins, wet layup	As the label says: typically 40 to 80 °F	Some systems need below 40 °F. Refrigeration slows ageing
Dry fabric	Room temperature, clean and dry	Wet layup fibre and resin keep for a long time at room temperature

The three lives of a prepreg

Term	Meaning	Typical
Storage life	Longest time in cold storage	6 months to a year; the maker can extend it after testing
Mechanical life	Longest time at room temperature before the resin cures too far	Measured from freezer out to freezer back; past it, discard
Handling life	Recommended time at room temperature to finish layup and compaction	Shorter than the mechanical life

Key points

- **Prepreg and film adhesive:** freezer, below 0 °F, sealed in moisture-proof bags.
- **Freezer type:** no automatic defrost; chest or walk-in; most household units reach 0 °F.

Step by step

1. Log the time out when the bag leaves the freezer.
2. Thaw the bag sealed and unopened.
3. Keep the area clean: dust, oil, vapours and smoke spoil the bond.
4. Open, cut the plies, put parting film on open sides.
5. Remove the backing between plies; vacuum bag.

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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- **Storage life** typically 6 months to a year; the maker can extend it after testing.
- **Mechanical life** counts the time out, freezer to freezer; past it, discard.
- **Handling life** for layup is shorter than the mechanical life.
- **Thaw sealed:** up to 8 hours for a full roll; open only when fully thawed.
- **Epoxy resins:** store as the label says, typically 40 to 80 °F.

6. Return unused material in a sealed bag; log the time in.
7. Discard anything past its mechanical life.

SOURCES · FAA-H-8083-31B, AMT Handbook — Airframe, Volume 1, Chapter 7

SCAN · OPEN THIS GUIDE
theaviationpoint.com/composites/storage-handling/

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