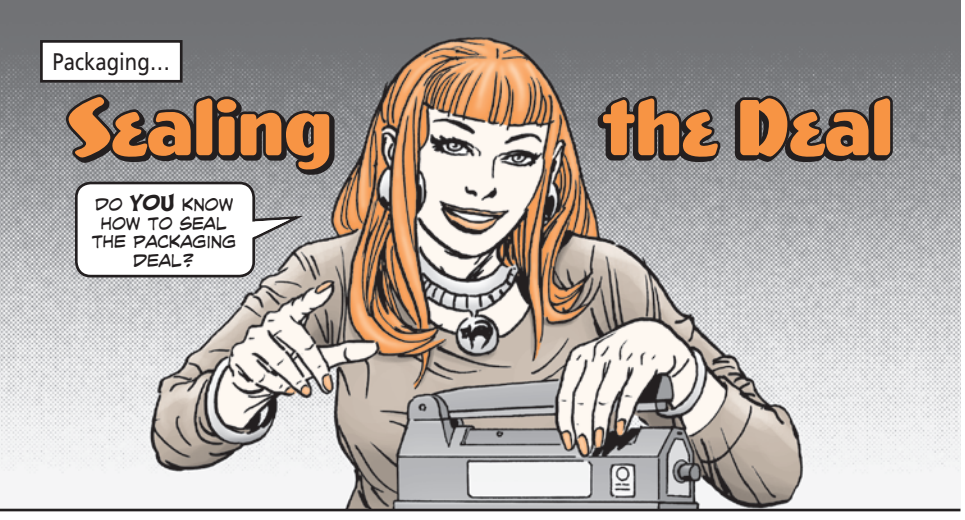
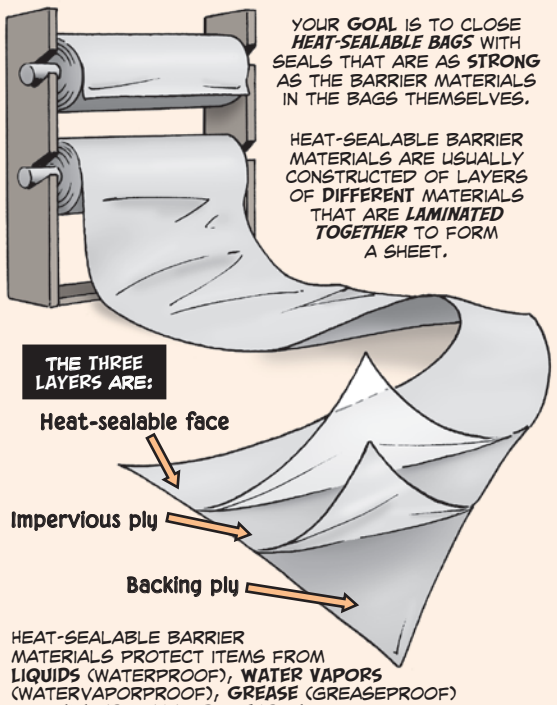
Packaging...

Sealing the Deal



SEALING IS AN ***IMPORTANT*** STEP IN MANY MILITARY PACKAGING PROCESSES.

SEALED BAGS BETTER ***PROTECT*** ITEMS DURING SHIPMENT.



YOUR **GOAL** IS TO CLOSE ***HEAT-SEALABLE BAGS*** WITH SEALS THAT ARE AS **STRONG** AS THE BARRIER MATERIALS IN THE BAGS THEMSELVES.

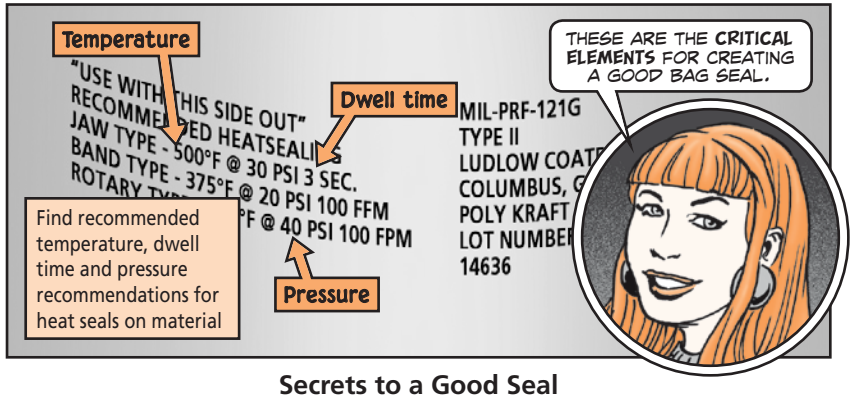
HEAT-SEALABLE BARRIER MATERIALS ARE USUALLY CONSTRUCTED OF LAYERS OF **DIFFERENT** MATERIALS THAT ARE ***LAMINATED TOGETHER*** TO FORM A SHEET.

THE THREE LAYERS ARE:

- Heat-sealable face
- Impervious ply
- Backing ply

HEAT-SEALABLE BARRIER MATERIALS PROTECT ITEMS FROM **LIQUIDS** (WATERPROOF), **WATER VAPORS** (WATERVAPORPROOF), **GREASE** (GREASEPROOF) AND **ELECTROSTATIC DISCHARGE** (ELECTROSTATIC-FREE).

PRESERVATION MATERIAL SHOULD **ALSO** BE STAMPED WITH A MILITARY SPECIFICATION; FOR EXAMPLE, MIL-PRF-121G. THIS SPEC CONTAINS IMPORTANT INFORMATION FOR MAKING THE BEST SEAL, SUCH AS TEMPERATURE, PRESSURE AND DWELL TIME.



Secrets to a Good Seal

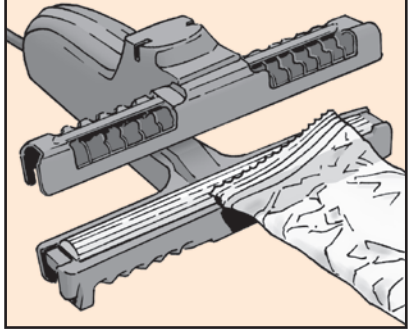
THE **THREE BASIC REQUIREMENTS** FOR SEALS ARE THAT THEY:

- **do not leak.**
- **have the same waterproof, watervaporproof or greaseproof properties as the barrier materials themselves.**
- **pass a strength test.**

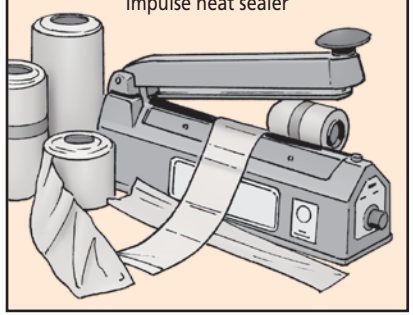
BEFORE YOU HEAT SEAL MATERIAL, YOU NEED TO DECIDE **WHAT KIND** OF HEAT SEALER IS NEEDED. THERE ARE ***THREE MAIN TYPES:*** **JAW, IMPULSE,** AND **ROTARY.**

SOME HEAT SEALERS WORK IN **BOTH** HANDHELD AND TABLETOP CONFIGURATIONS.

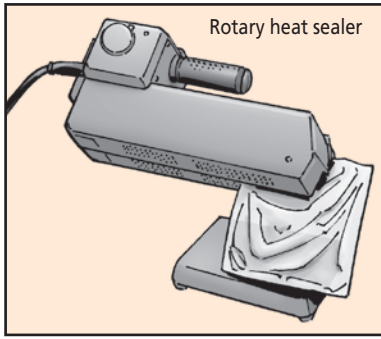
Jaw-type heat sealer



Impulse heat sealer



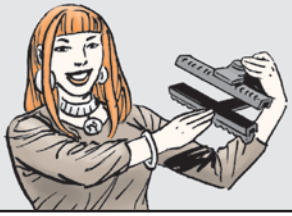
Rotary heat sealer



PS MORE

DWELL TIME AND TEMPERATURE ARE **ADJUSTABLE** ON ***MOST*** HEAT SEALERS...

...AND, IF YOU'RE USING A **JAW-TYPE HEAT SEALER**, YOU CAN ALSO ADJUST THE ***PRESSURE.***

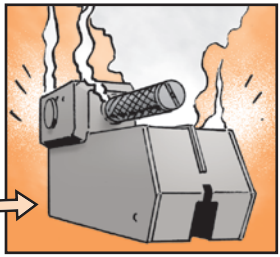


HEAT SEALERS ARE SOLD FOR BOTH "SUPPORTED" AND "NON-SUPPORTED" HEAT-SEALABLE PACKAGING MATERIALS.

WHICHEVER HEAT SEALER YOU CHOOSE, IT SHOULD BE **EASY TO USE** AND **LIGHTWEIGHT.** THAT LETS YOU EASILY INSERT ANY HEAT-SEALABLE MATERIAL INTO THE SLOT ON THE BOTTOM EDGE OF THE MACHINE.

GET COMFORTABLE WITH YOUR PRESERVATION MATERIAL AND HEAT SEALER BY TRYING A ***SAMPLE HEAT SEALING*** FIRST WITH THE TEMPERATURE SET ABOUT 100 DEGREES **LOWER** THAN THE MATERIAL REQUIRES.

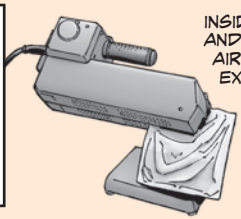
THAT WAY YOU'LL **AVOID** BURNING THE MATERIAL AND GUMMING UP THE HEAT SEALER.



IF THE TEST SEAL **DOESN'T** PULL APART AND HAS NO BUBBLES, THEN YOU'RE OK TO PROCEED.

IF ***NOT,*** GRADUALLY INCREASE THE TEMPERATURE UNTIL YOU GET A GOOD SEAL.

IF YOU'RE USING A **ROTARY TYPE HEAT SEALER,** YOU'LL NEED TO GUIDE THE MATERIAL THROUGH THE MACHINE.



INSIDE THE MACHINE, THE MATERIAL IS HEATED AND THEN COMPRESSED, CREATING A SECURE, AIRTIGHT SEAL. THE SEALED MATERIAL THEN EXITS THE OPPOSITE END OF THE MACHINE.

TEST THE SEAL BY PULLING GENTLY AT THE SEAMS. IF FURTHER SEAL TESTING IS NEEDED, REFER TO MIL-STD-3010C, *TEST PROCEDURES FOR PACKAGING MATERIALS AND CONTAINERS.*

TO KEEP YOUR HEAT SEALER IN **OPTIMAL** CONDITION, REMEMBER THAT IT NEEDS PMCS, TOO. FOLLOW THE MANUFACTURER'S RECOMMENDED CLEANING SCHEDULE.

YOU CAN FIND THE PUBLICATIONS REFERENCED IN THIS ARTICLE AT: http://quicksearch.dla.mil/qsSearch.aspx

THE ***QUICKEST*** WAY TO FIND A PUB IS TO ENTER ANY NUMBERS FROM ITS TITLE (FOR EXAMPLE, MIL-STD-129 IS '129') INTO THE DOCUMENT NUMBER SEARCH BOX AND THEN PRESS THE SUBMIT BUTTON.

FOR MORE PACKAGING TIPS, DOWNLOAD LOGSAP 746-1, *PACKAGING–THE BASICS.* GO TO: https://www.logsa.army.mil/documents/LOGSAP_746-1.pdf

IF YOU HAVE ANY **FURTHER** QUESTIONS ON HEAT SEALING OR PACKAGING PRACTICES, CONTACT THE LOGISTICS SUPPORT ACTIVITY'S PACKAGING, STORAGE AND CONTAINERIZATION CENTER (PSCC) AT DSN 795-7105, (570) 615-7105, OR EMAIL: usarmy.tyad.usamc.mbx.pt@mail.mil

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