Instructions for Preventing Handling Damage While Opening Blister Packs

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Please Note: CFW visually inspects each spool after it is sealed in its packaging prior to shipping. CFW is not responsible for damage due to mishandling after the material leaves the CFW Facility.

STOP – Do not proceed before watching the demo provided at the following URL: "Opening and Handling Wire Bonding Spools" (https://www.youtube.com/watch?v=L0n_eiKBCac)

Inspecting Wire Through Blister Pack:

- 1. As soon as possible upon receipt and <u>before</u> removing the packaging, examine the wire through the clear container to see if any spooling problems occurred during shipping (e.g., damage, loose strands, multiple ends, wire shifting, etc.). If damage is observed, do <u>not remove</u> spool from packaging or break the tamper-resistant seals contact the CFW Sales Representative for a return material authorization number (RMA). Once the package has been opened and the tamper-resistant tags are removed, CFW can no longer control the quality of the product and cannot guarantee a credit or replacement.
- 2. Per the T&Cs (http://www.calfinewire.com/faqs-return-policy.html), ensure that any shortages are reported within five (5) days and any other non-conformances are reported within thirty (30) days of arrival otherwise material shall be deemed conforming.

Opening the Blister Pack:

- 1. Break the tamper seal with a fingernail or other sharp object.
- 2. Remove the blister top by holding the bottom flap and carefully pulling the top half of the pack straight up and away. Take care to not let the edges of the top half come in contact with the wire on the spool, as this will cause breakage or kinks in the wire (see Figures 4, 5 and the demo URL above).
 - a. The best way to avoid contact with the wire is to place the blister pack on a flat surface and hold the bottom half down while pulling up on the top half.
- 3. At this point, the spool is still firmly secured to the bottom half of the blister pack.
- 4. If you notice wire damage during receiving-inspection, please notify CFW immediately so arrangements can be made to evaluate the wire for damage and a possible replacement.

Removing the Spool from the Blister Pack:

- 1. Securing the bottom of the blister pack, gently but firmly grasp the outside flange of the spool as shown in Figure 1, being careful to not touch the wire. Touching the wire will cause breakage, kinks in the wire, and/or fingerprints.
- 2. Very slowly twist the spool while slightly pulling it away from the blister pack (like removing the lid from a jar), continuing to avoid touching the wire.

Mishandling:

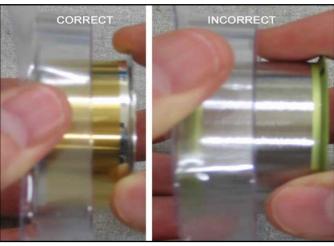
Please note: CFW is not responsible for damage due to mishandling after the material has left the CFW facility. This includes improperly securing the starting end of the spooled material and allowing the single strands to become entangled with each other, fingerprints, scratches from surfaces (edges of counters or packaging), or from fingernails.

- 1. The most common handling damage is due to fingerprints. When a finger touches the wire, a combination of physical damage and residue is imparted to the wire. The residue turns into rust (oxides), as shown in Figure 2. Residue on wire strands due to mishandling can also be seen in Figure 3.
- 2. Damage caused by the blister cover touching the wire while the package is being opened is shown in Figures 4 and 5. Fingernail damage occurs when a fingernail touches the wire while a spool is being handled.
- 3. The wire must be kept under tension when the start end is un-taped (for all spools, unless otherwise requested by

customer, the red tape is on the start end). If it is allowed to unravel or become loose on the spool, the wire will shift on the barrel and become under-wound or tangled (Figure 4). Using a proper payoff or tension can prevent this.

- 4. It is not recommended to tape over the flange (on the outside). Instead, tape on the inside of the flange. This will prevent the wire from being pinched or broken if the spool is taken in and out of the blister pack.
- 5. If placing a spool back into the blister pack, be careful not to touch, damage, loosen or remove the tape with the packaging or your fingers, as tension can be lost which will cause the wire to become loose on the spool.

Removing AL-8, AL-9 and TS-1 Spool from Blister Pack Figure 1



Examples of Handling Damage

Figure 2 - Finger salts from touching wire without glove.

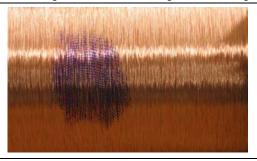
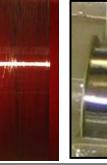


Figure 4 - Spool dropped or dinged, fingernail or clamshell dragged across wire. This could also cause breakage or multiends.



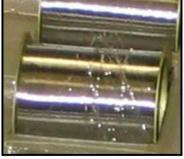


Figure 3 - Residue on wire.

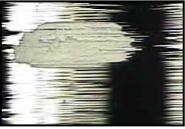




Figure 5 -Blunt object dragged across wire. This could also cause breakage or multi-ends.

