

Leo Lambert
Vice President & Technical
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## Magnet Wire

What is it?
Is it Solderable?



ABOUT THE PRESENTER

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#### What is Magnet Wire

- It is round insulated
   Copper or Aluminum wire in the diameter wire range size typically .47mm to 3.20mm.
- It is also called Winding wire.

http://www.professionalplastics.com/Magnet\_Wire?&search\_id=1686736



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#### **Type of Magnet Wire**

There are many types and this information can be found on the Professional Plastic web site, but to name a few, they are:

- PIW Polyimide thermal Class 220C
- PEWN Polyester Nylon thermal class 155C
- HPEWN Polyester Nylon thermal class 180C
- FORMVAR Polyvinyl Formal thermal class
   105C
- UEWN Polyurethane Nylon thermal Class 130/155C



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#### **Type of Magnet Wire**

- HPEAIW Polyester Polyamide-imide thermal class 200C
- AIW Polyamide-imide thermal class 220C
- EIAIW Polyester-imide Polyamide-imide thermal class 200C



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### **Stripping Magnet Wire**

- If the wire is big enough, scraping with an Xacto blade works very well, but be careful not to scrape or nick the wire
- An alternative is to stick the wire end into a small flame and burn the enamel off.
- Soldering iron or solder pot



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#### **Auto Stripping**



http://www.eraser.com/products/wire-cable-strippers-product/wheel-strippers/rt2s-magnet-wire-stripper/



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- 1. The USP1 stripping pot is designed specifically for use with ultrafine wire.
- 2. The USP1 has an advanced feedback temperature controller.
- 3. Ultrafine Stripper is used to chemically remove the insulation from virtually all magnet and enamel wires from 40-48AWG(.046-.030mmø) without damage to the wire.
- 4. When heated in the specially designed stripping pot, wires are immersed to strip the insulation.
- 5. The stripped wires are then rinsed in water and Dip Clean Metal Cleaner to remove oxides and salt residue.
- 6. Ultrafine Stripper does not corrode conductors as will acid strippers.
- 7. Custom square and rectangular pots available –





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One US pint of Ultrafine Stripper is used in the USP1 Stripping Pot to chemically remove the insulation from virtually any magnet wire from 40 to 48 AWG (.046 to.030mmø), without damage to the conductors.

Note: Contact Eraser's Customer Service Department for shipping information. –

#### See more at:

http://www.eraser.com/products/replacement-parts-product/ultrafinestripper/#sthash.mxjUeKU5.dpuf

http://www.eraser.com/products/wire-cable-strippers-product/chemical-wire-stripping/usp1-ultra-fine-magnet-wire-stripping-pot/#sthash.wvCttSdi.dpuf

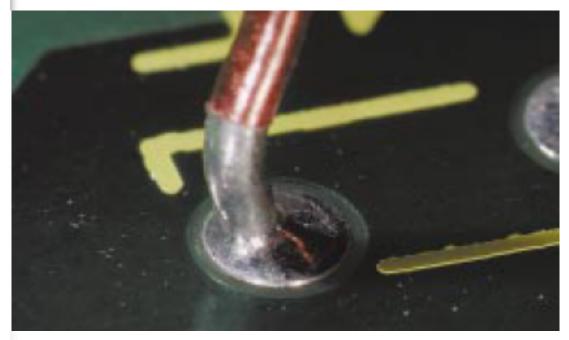


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#### **Acceptance Criteria**

Target condition for all classes of products.



Adapted from IPC-A-610 Rev E - Coated wire Insulation in Solder



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#### **Acceptance Criteria**

Acceptable Class 1, 2, 3



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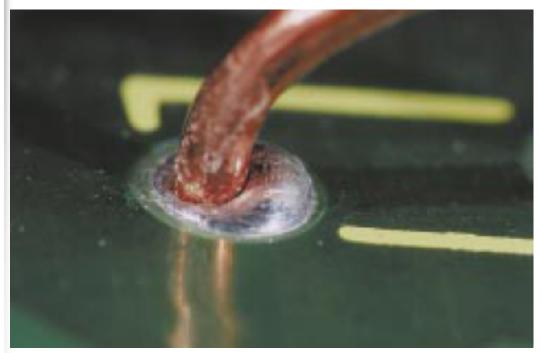
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#### **Acceptance Criteria**

Rejectable condition all three classes of products.



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#### **Additional Information**

- http://www.molex.com/pdm docs/ps/PS-19902-001.pdf
- http://www.professionalplastics.com/professionalplastics/
   TypesofMagnetWire.pdf
- <a href="http://www.nema.org/Products/Pages/Magnet-Wire.aspx">http://www.nema.org/Products/Pages/Magnet-Wire.aspx</a>
- http://www.coilwindingmachines.eu/production\_aids/ so1\_brush\_style\_wire\_stripper.html



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# Thank You Any Questions?



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#### **Further Information**

For questions regarding this webinar, please contact Leo Lambert at <a href="mailto:leo@eptac.com">leo@eptac.com</a> or call at 800-643-7822 ext 215

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