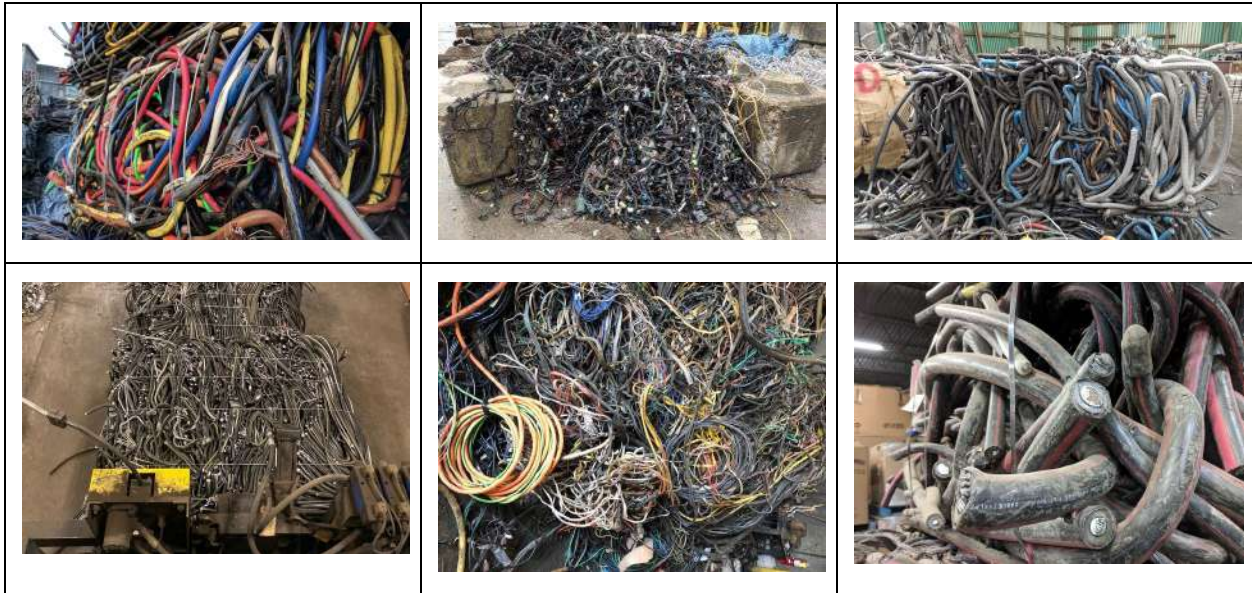


## Non-Ferrous: Insulated Wire

### Insulated Wire

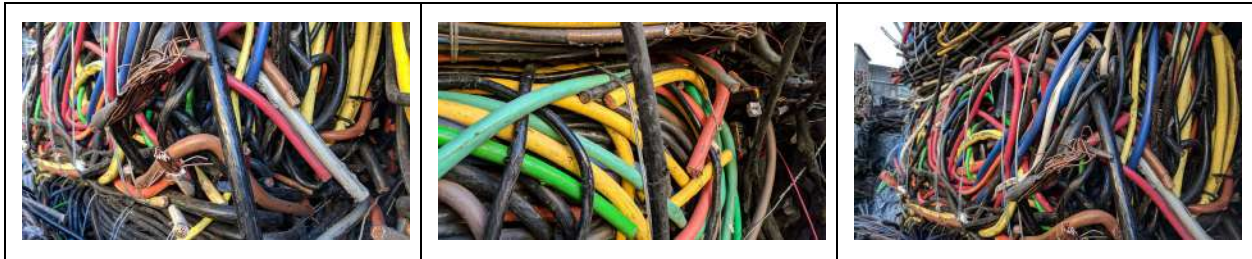
- **Description**

- Insulated wires (Aluminum & Copper) are used in electrical applications and vary in size depending on the power requirements. Individual strand gauge and percentage of copper to waste will determine the price of this material.



## Insulated Copper Wire - Level 1

- # 1 Insulated Copper Wire [Druid]
  - **Description**
    - The key factor that separates #1 ICW from #2 ICW is the individual strands' gauge, not necessarily the copper recovery. There might be a very low recovery wire due to the amount of insulation; however, if the individual strands are thicker than 16 gauge, it's considered a #1 ICW.
  - **Upgrade potential**
    - There are several upgrades available from #1 ICW. The most common upgrade method is to make use of a wire stripper. If the copper is bright without any contaminants, it can be added to #1 Bright and Shiny [Barley], whereas if the wire is oxidized, it will be added to #1 Copper [Berry]. Chopping this wire has become more prevalent recently, which then makes it into Clove.
  - **ISRI definition**
    - **Druid Insulated Copper Wire Scrap**
      - Shall consist of No. 1 bare, uncoated, unalloyed copper wire (see Barley), not smaller than No. 16 B & S wire gauge (unless smaller wire gauge is mutually agreed upon), with various types of insulation. To be sold on a sample or recovery basis, subject to agreement between buyer and seller.



## Non-Ferrous: Insulated Wire

- #2 Insulated Copper Wire [Droid]
  - **Description**
    - The key factor that separates #1 ICW from #2 ICW is the gauge of the individual strands, not the copper recovery. In the case of #2, the strand gauge or tin coating does not matter. There might be a very high recovery wire due to the amount of copper; however, if the individual strands are thinner than 16 gauge, it's still considered #2 ICW.
  - **Upgrade potential**
    - Upgrades are available from #2 ICW. The most common upgrade method is to make use of a wire stripper. Stripping #2 ICW will result in #2 Copper [Birch] and a significant difference in value. Chopping this wire has become more prevalent recently, making it into Cobra and another substantial difference in value.
  - **ISRI definition**
    - **Droid Insulated Copper Wire Scrap**
      - Shall consist of No. 2 copper wire (see Birch) with various types of insulation. To be sold on a sample or recovery basis, subject to agreement between buyer and seller. Existence of jelly wire subject to agreement between buyer and seller.





## Non-Ferrous: Insulated Wire

- **BX Cable**
  - **Description**
    - BX Cable is another common grade of insulated copper wire. To the untrained eye, BX might look like aluminum strands; however, several strands of #1 ICW can be seen when the end is cut open. Due to the aluminum conduit and uniform recovery, BX should not be mixed with other ICW.
  - **Upgrade potential**
    - Similar to any ICW, BX cable can be upgraded by stripping the ICW inside the aluminum conduit. This will produce #1 Bright and Shiny [Barley], and the aluminum conduit can then be mixed with New Aluminum [Tough/Taboo].
  - **ISRI definition**
    - **Druid Insulated Copper Wire Scrap**
      - Shall consist of No. 1 bare, uncoated, unalloyed copper wire (see Barley), not smaller than No. 16 B & S wire gauge (unless smaller wire gauge is mutually agreed upon), with various types of insulation. To be sold on sample or recovery basis, subject to agreement between buyer and seller.



### Insulated Copper Wire - Level 2

- #3 Low Grade Insulated Copper Wire
  - **Description**
    - #3 Insulated Copper Wire is a low-grade wire with the percentage of copper recovery typically under 40%. This wire will be at the high side of 16 gauge and is bought and sold on a recovery basis.
  - **Upgrade potential**
    - There might be some higher recovery ICW mixed in with #3, so it is important to sort through it. As with all ICW, this can be stripped or chopped to produce #2 Copper wire or chops.



## Non-Ferrous: Insulated Wire

- Christmas Lights

- **Description**

- Believe it or not, Xmas lights are a common scrap commodity. Typically Xmas lights have a copper recovery of around 22%, so they are considered #3 ICW. While they can be mixed with other ICW, it is better to keep them separate since they're easily identifiable.

- **Upgrade potential**

- Different types of ICW can be found within Xmas lights, so it is important to sort them thoroughly.



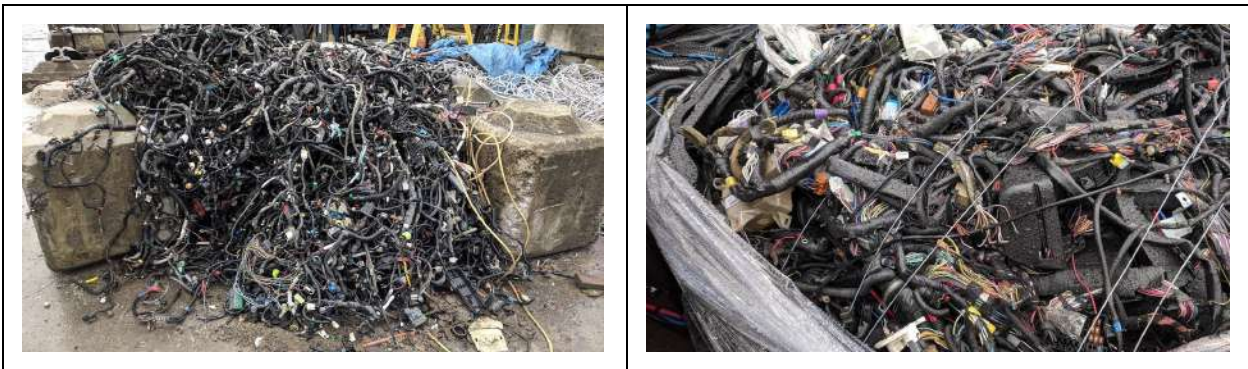
- Harness Wire

- **Description**

- Harness wire is found within the electrical system of vehicles. It is easily identifiable as it is mostly wrapped with a black plastic conduit. Harness wire will range in copper recovery between 40-50% depending on the number of attachments.

- **Upgrade potential**

- Removing plastic attachments and conduit can bring this material into a #2 ICW, and from there, it can be stripped or chopped to recognize a higher upgrade.



## **Non-Ferrous: Insulated Wire**



## Insulated Aluminum Wire

- **Description**

- Insulated Aluminum Wire (IAW) has become a common item at any scrapyards. Due to the cost of copper wire, many electricians have switched to aluminum wire. The most common IAW is an aluminum wire coated with rubber or plastic, also known as Messenger cable or Triplex. IAW can be found inside aluminum Teck cable. Watch out for ACSR as it is often found mixed in with IAW even though it doesn't have insulation.

- **Upgrade potential**

- This wire will likely come from electricians, there may be insulated copper wire (ICW) mixed in with the IAW, so it is vital to check the material before processing. Conversely, look out for insulated ACSR, and be sure to check with your magnet. Like ICW, IAW & Teck cable can be stripped of their insulation to produce a top-grade aluminum called EC wire. As wire strippers become outdated, wire choppers or granulators are becoming more prevalent, and all three types of IAW (Messenger, Teck, and ACSR) can be upgraded to EC chops through these machines.

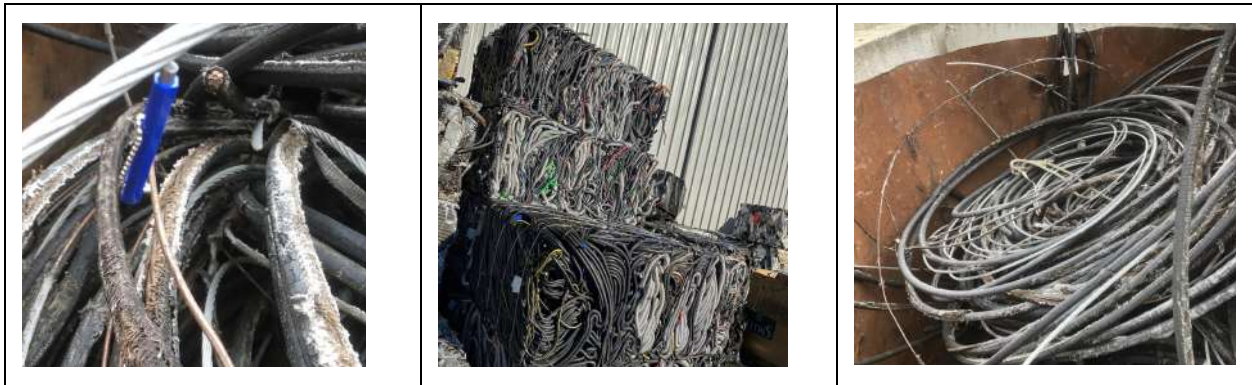
- **ISRI definition**

- **Trill ACSR**

- Aluminum Conductor Steel Reinforced (ACSR) wire is a combination of steel and aluminum wire, of various configurations, with the expected aluminum recovery agreed upon by the buyer and the seller. Material to be free of other wires and cables unless mutually agreed upon.

- **Twang IAW**

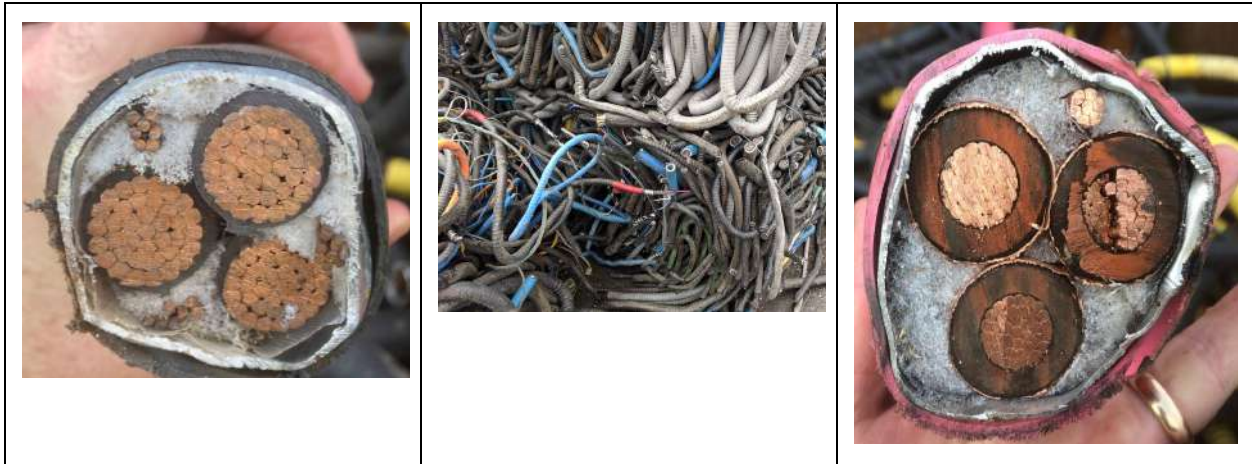
- Insulated aluminum wire, which may or may not contain other wires or metal shielding, with the expected aluminum recovery agreed upon by the buyer and the seller. The material to be free of other wires and cables unless mutually agreed upon.





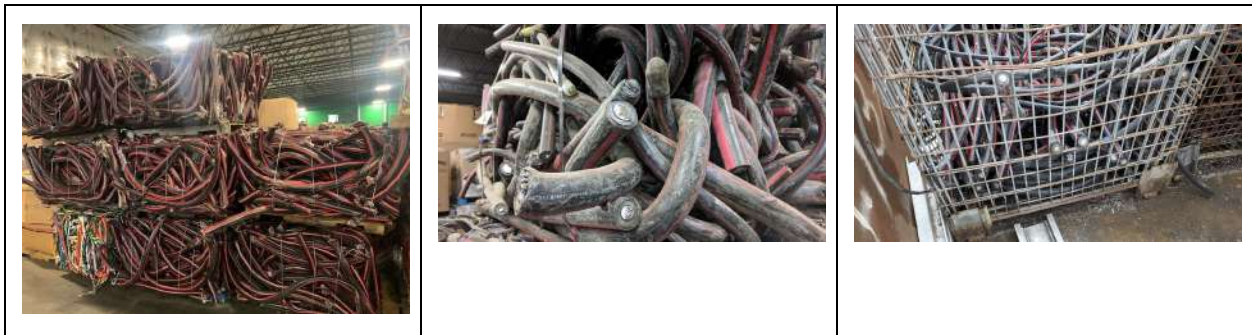
## Non-Ferrous: Insulated Wire

- Teck Cable
  - **Description**
    - Teck cable consists of several layers of insulation. The inside contains strands of either IAW or ICW, and sometimes strands of EC wire or #1 Bright and Shiny [Barley]. These strands are then wrapped inside rubber insulation, and that insulation is then surrounded by aluminum or steel conduit coated with rubber insulation.
  - **Upgrade potential**
    - As with all IAW or ICW, this material can be upgraded with a wire stripper or processed through a chopper. The aluminum conduit can be upgraded to New Aluminum [Tough/Taboo], and the IAW or ICW can be upgraded to EC or #1 Bright and Shiny [Barley] wire/chops.



## Non-Ferrous: Insulated Wire

- URD Concentric
  - **Description**
    - Underground Residential Distribution (URD) or Concentric is a common type of wire used by utility companies. This wire is typically identifiable due to its black rubber insulation with a red stripe on the outside. This wire has insulated aluminum wire on the inside, with copper strands or foil on the outside that is then wrapped with rubber insulation. It is essential to conduct a recovery analysis to gain the best price for this material as there are several styles with varying recoveries.
  - **Upgrade potential**
    - As with all IAW or ICW, this wire can be stripped to reveal the copper #1 Bright and Shiny [Barley] or #1 Copper [Berry] and aluminum (EC Wire) on the inside. Due to the mixture of aluminum and copper, this material is not suitable to be granulated or chopped as it is tough to separate the two metals.



## **Non-Ferrous: Insulated Wire**