OPGW CABLE - 5/8 - 3/4" Diam - 4 Makes, Alcoa, Simplex, Brugg, Focus

We will find this cable on Hydro Towers, in the web of the rail in mines, On offshore drill rigs and any place we need a reliable, almost indestructible cable for our communications. In this case this cable serves the purpose of grounding the system, deflecting lightning strikes away from the phase wires and also providing communications.



Prepping this cable is more time consuming with different tools required.

We need 7-8 feet of armour removed first. We do this by:

- ♣ Put a hose clamp tightly around the area where you will cut.
- A mini grinder with a cut off blade will do this, but with care. There are two layers of strands and for this type of cable only the fibers are in the second row. **DON'T use the mini grinder without a face shield and gloves.**
- Don't cut all the way through and bend them off the last part if possible. Depending on the tensile strength (hardness) of the cable a hack saw with a 32 tooth blade will also do. Some strands have the hardness of spring steel.



Next identify the tubes (strands) in the second row that have the fiber. In this cable there are two tubes with 24 fibers each. The tubes in this cable are 2.0mm.

The mini tube cutter will cut this tube but with great care. For a normal termination you need about 7 feet of the tubes removed. Don't cut it all the

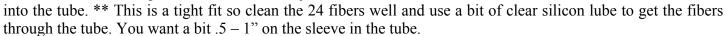
way through. Treat it as you would a regular loose tube. (Cut mostly through then bend it) You will find

a heavier than normal black gel in the tubes which you will remove with your Gel

Remover liquid.

Once the tubes are removed you want to protect the fibers from the

sharp edge of the tube. The tube is small and the best sleeve will be a short piece of 1.6 mm cable jack to slide



Next you will find 24 fibers in this particular cable. The first 12 will be colored normally and the second group of 12 will have a black dot on them (the black will have a yellow dot)

Next we separate the fibers into two groups. You might use some small 2.0 mm or smaller furcation tube or small transition tube to get the fibers securely to your splice tray. Your choice but treat the fibers with care.

Last you will put a 3 or 4" piece of shrink sleeve over the end of the tubes and the transition tubes. A bit of epoxy under the shrink sleeve will protect the fiber joint.

