

# NSP™ / CSP COMPOSITE

**DYNAMIC STIFFNESS with 10 X THE IMPACT RESISTANCE**



NSP / CSP is a unique natural fiber that is **lighter, stronger, offers ½ the stiffness and 10X the impact resistance than carbon**. The stiffness can be regulated by fiber orientation to be equal to carbon. NSP / CSP can be stiff or flexible depending upon practitioner preference. NSP / CSP wets out fast because of its high fiber/resin interface. Translated, the resin sticks to the fiber and air does not get trapped easily.

## Features:

Unlike carbon, NSP/CSP is a green eco-friendly natural fiber that creates no flying fibers and no itch which technicians and practitioners love.

- Provides great fatigue strength for the socket
- Tested in socket form under ISO guidelines for patients up to 500 lbs
- Available in 3, 4, 5, 6, 8, 10 & 12 inch width
- 10 and 50 foot length rolls
  - (10" & 12" / width is only available in NSP)
- **NSP = WHITE - P/N 4011**
- **CSP = BLACK - P/N 4012**



### Uni-Directional NSP TAPE

- 1" width - 30 ft roll  
P/N = 4111-3K-1.30
- 3" width - 30 ft roll  
P/N = 4111-3K-3.30

## Cutting NSP™ Fiber:

- Before cutting NSP / CSP fiber, tape the edge of the fiber with masking tape then cut down the middle of the tape line. Use a scissor with a serrated edge.
- If you attempt to cut NSP / CSP fiber with a smooth bladed scissor, use very sharp scissors then fold the braid over on itself - (doubling up) greatly helps.

## Lamination:

NSP / CSP is a high tech strong fiber. It requires a strong resin like Epoxy or 80:20 to contain the fiber when grinding. **Uni-directional tape** is used to enhance longitudinal and brim strength and stiffness.

## Edging:

For the best edging results, the use of Perlon, nylon or 1/2oz Dacron felt is ideal as the first layer and the last layer. Modified Polyester type resins burnish off the braid fibers and results in fuzzing.

The NSP material can create incredible color combinations when using pigment or t-shirt transfer design.



## Grinding:

- NSP/CSP is not Carbon. A different yet simple technique is required.
- Use **high** speed and **very light touch**.
- Only use a sharp cone. Dull abrasives will create friction and will "burn off" the resin and leave exposed fibers at your edge.

*Note: "Burn off" is when the resin heats up with friction and melts or shrinks back, exposing the fiber contents.*

## Edging Techniques:

*(The use of inner and outer finish layers is required. See example TT & TF Layout.)*

**Finishing edge instructions:** Finish as you would any composite by wet sanding using 220 grit and finish with 400 grit wet/dry sanding paper.

## Tips:

For T-shirt transfer – NSP (White):

Do a normal layup using NSP  
Replace the finish layer of Perlon with graphics material.  
Do not use any pigment

### Extra bright graphics

First lamination with white pigment. Follow up with a second lamination with one Perlon and the graphics with a clear resin

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