

## TIP EVALUATION

1ST 3mm

|                                  |                       |
|----------------------------------|-----------------------|
| SIZE .....                       | 25/04                 |
| FLUTES .....                     | 3                     |
| SPIRALS PER 16MM .....           | 4                     |
| HELIX ANGLE .....                | 10° (at apical 1/3) ● |
| CUTTING ANGLE .....              | (-) 30° ●             |
| DEBRIS REMOVING AREA .....       | 55% ●                 |
| X-SEC. AS % OF CUTTING DIA. .... | 28%                   |
| CORE AS % OF X-SEC. AREA .....   | 62%                   |
| ROTATION TO FAILURE .....        | 805°                  |
| PEAK TORQUE AT FAILURE .....     | 15.3 gf/cm            |
| 60° DEFLECTION .....             | 1.42 g                |
| PLASTIC DEFORMATION .....        | 0°                    |

## TWISTED FILE®

COMPANY:  
KERR SYBRON

MANUFACTURER:  
KERR SYBRON

MADE IN:  
USA

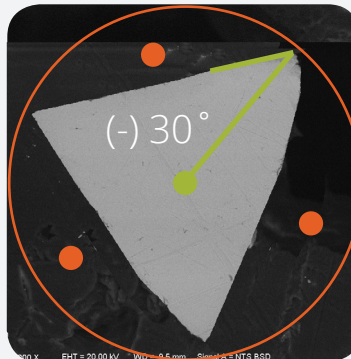
WEBSITE:  
KERRDENTAL.COM

## SEM IMAGES

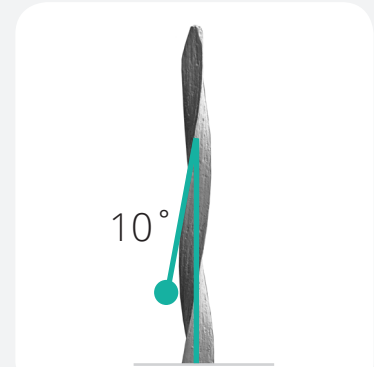
COURTESY OF UT MEMPHIS



TIP



TIP X-SECTION



## DISCUSSION:

- Unlike other files tested, the TF files are ground parallel to its long axis, along the length of its working surface. Other files are ground more perpendicular to their long axis during which the microscopic ground grooves form micro cracks that are concurrent with the cleavage planes of the metal. This significantly increases the file's resistance to torsional failure, not to be confused with stress resistance, during performance.

SEMs are provided by Dr. Franklin Garcia-Godoy, Professor and Senior Executive Associate Dean for Research Director, Bioscience Research Center University of Tennessee Health Science Center