

## MIRA ULTRA SF

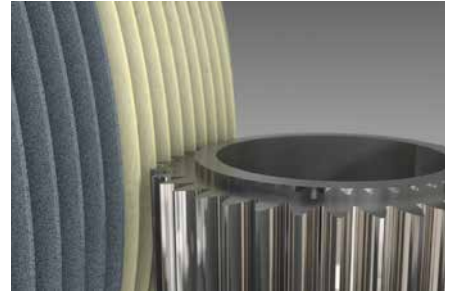
2-Zone gear grinding wheels for continuous generating grinding and superfinishing of gears

# MIRA ULTRA SF

The MIRA ULTRA SF product line has been specifically developed for superfinishing (SF) gears during continuous generating grinding. The worm grinding wheel is designed as a 2-zone tool with a ceramic zone and a resin zone. The ceramic zone is used for pre-grinding and finish grinding, while the resin zone is used for superfinishing. This innovative tool design meets the high surface requirements of the automotive and transmission industries for polished surfaces on tooth flanks.

### Application

Grinding and superfinishing of a gear during continuous generating grinding with MIRA ULTRA SF



#### + Polished tooth flanks:

Polished surface structures are achieved on the tooth flanks through superfinishing.

#### + 2-zone worm grinding wheel:

Innovative resin-bonded zone for superfinishing of tooth flanks in combination with a ceramic zone. The dressing process is unchanged.

#### + Vs 80 m/s:

The worm grinding wheels are approved for a cutting speed of up to  $V_s = 80$  m/s. The 2-part structure in the resin zone guarantees additional safety.



#### + Wide variety of specifications:

Superfinishing can also be combined with the TYROLIT product lines MIRA and MIRA ICE.

## Sample application

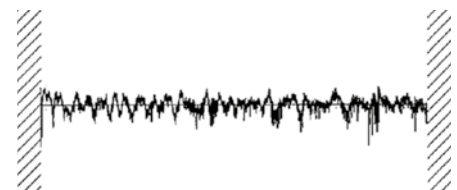
Sample application for polished surface qualities during continuous generating grinding with MIRA ULTRA SF

**Worm grinding wheel:**  
275x160x160 mm / 1-start

**Teeth:**  
Module 2.8 / pressure angle 20° /  
number of teeth 40 / tooth width 34 mm



Surface finish grinding  $R_a = 0.223$



Surface superfinishing  $R_a = 0.051$