

## Technical Data Sheet

Product description: methacrylic material for stereolithography systems with solid-state laser (Nd:YVO<sub>4</sub>) for ITE-earmoulds

Manufacturer: Dreve Otoplastik GmbH  
Max-Planck-Straße 31  
59423 Unna / Germany

Composition:

Pos	chemical term
1	alkoxilated bisphenol-A-dimethacrylates
2	urethane dimethacrylate
3	butanediol dimethacrylate
4	initiators
5	inhibitors
6	dye
7	pigments

Quantity: 1000 g, 5000 g  
Colour: beige opaque 1  
(corresponds to released sample in the house)

Properties:  
density: 1.1 – 1.2 g/ml  
viscosity: 0.6 – 1.0 Pa s

green flex modulus: elastic modulus: 800 – 1200 MPa  
(without post curing) flexural strength: 50 – 90 MPa  
elongation at break: 14 – 20 %  
impact-strength: 20 – 30 kJ/m<sup>2</sup> (Charpy unnotched)

post cured material: elastic modulus: 2100 – 2500 MPa  
(10 minutes FotoTec® PCU in flexural strength: 110 – 130 MPa  
a protective gas atmosphere) elongation at break: 7 – 9 %  
impact-strength: ~ 10 – 17 kJ/m<sup>2</sup> (Charpy unnotched)  
hardness: 80 – 84 Shore D

penetration depth: D<sub>p</sub>: 102 µm (4.0 mils)  
critical exposure: E<sub>c</sub>: 15.0 mJ/cm<sup>2</sup>

These data were found out using Dreve styles for the Viper Si<sup>2</sup> system. The above mentioned mechanic characteristics depend on the used build styles and build parameters of the Viper Si<sup>2</sup> system, the cleaning and drying of the shells and the characteristics of the used post-curing unit. Variations in the manufacturing process may lead to modified mechanic characteristics and colour variations.