

mhc microhybrid composite / Technical Data

Resin content	BisGMA, BisEMA, TEGDMA
Filler content	BaAlBSi, silanized, \varnothing 0.70 μ m, max 2.6 μ m SiO ₂ , silanized, \varnothing 0.04 μ m
Operation light resistance	70 seconds (10000 lux)
Depth of cure	3.7 \pm 0.5 mm in 60 seconds
Flexural strength	130 MPa
Flexural modulus	6620 MPa
Water absorption	0.36% (24 h) / 0.64% (7 d)
Solubility	0.05% (24 h) / 0.08% (7 d)
Shades	matching VITA Shade Guide
Colour Stability	stable according to ISO
Radio-opacity	217% Aluminium
Hardness	79 HV
Coefficient of thermic expansion	40 ppm/ $^{\circ}$ C (20 $^{\circ}$ C - 50 $^{\circ}$ C)
Polymerization shrinkage stress	12.5 MPa after 30 min.
Volumetric shrinkage	2.9 vol% (60 sec.) / 3.7 vol% (30 min.)
Opacity	0.45 - 0.55%, Incisal Blue 0.65 - 0.75%
Transparency after 24 h	19 - 22%, Incisal Blue > 28%
Occlusal abrasion	like natural enamel
Consistency	homogeneous paste, ideal plasticity
Appearance after curing	homogeneous, smooth and shiny surfaces
Conformity with ISO 4049	fulfilled