

Properties of Mascot GRC

Mechanical properties	
Compressive strength The enclosure's wall/base is subject to compressive loads in use and needs to withstand specific loads.	80MPa typical
Flexural strength Affects site handling and when enclosure is installed in areas where encasement and soils are suspect.	24MPa
Tensile strength Generally only relevant to an enclosure's lid/cover.	20MPa
Thermal/Electrical properties	
Water absorption The enclosure's wall/base is designed to keep moisture away from its contents where possible.	< 5%
Electrical resistivity The electrical insulation capability of an enclosure's materials.	$1 \times 10^8 \Omega/\text{sq}$
Freeze thaw Inability to withstand freeze-thaw cycles causes surface spoiling and leads ultimately to an enclosure's failure.	Modulus of elasticity unchanged
Coefficient of expansion/contraction Excessive movement between enclosure's wall/base and encasement materials (usually concrete) creates unwanted stresses which may lead to failure.	$10 \times 10^{-6} \text{ deg C}$
Water vapour transmission WVT is a measure of water vapour flow through a material. Passage of water vapour may be critical in some instances.	$1 \times 10^{-4} \text{ gm/s. Mn}$
Surface properties	
Surface burning Cable enclosures are often used around petrol stations, chemical processing and interior applications and may be subject to fire. They should be non-flammable and not give off fumes or smoke.	Non combustible. Ignitability: P Fire propagation: 0 Flame spread: Class 1 Fire resistance: 1 hour for 10mm thickness
Weathering The majority of cable enclosures are used in exterior applications. Ability to withstand adverse weather will ensure long service life (erosion, UV degradation, etc.)	UV Stable Good as H.S. Concrete
Chemical Resistance Cable enclosures may be subject to acidic or alkaline soils.	Excellent. Equivalent to 80MPa concrete