Indicative Enclosure Material Considerations

Consideration	Metallic Enclosure	FRP / GRP Enclosures	HPL-based Enclosures (Drhino)
Electrical conductivity	Conductive; earthing and bonding required	Non-conductive	**Fully non-conductive (including handles)**
Corrosion behaviour	Can be susceptible depending on alloy, coating and environment	Generally corrosion resistant; performance dependent on resin system and finish	**Inherently corrosion resistant**
Thermal behaviour	High thermal conductivity; prone to heat transfer	Low thermal conductivity	**Stable thermal behaviour; low conductivity; passive ventilation cooling**
Condensation risk	Can be prone due to thermal bridging	Reduced compared to metal	**Reduced through material stability and enclosure design**
Environmental exposure (dust / moisture)	Sealing and coatings critical	Good when correctly sealed	**Designed for external exposure and effective sealing; guarding against atmospheric salt**
UV resistance	Coatings may degrade over time	UV stability dependent of resin and finish quality	**High UV stability inherent to material**
Impact / mechanical behaviour	High strength; dent possible on impact	Can be brittle depending on layup	**High surface durability, resistant to rodents, insects, and fungi; impact resistance**
Vandalism / graffiti resistance	Susceptible to scratching; graffiti removal may damage coatings	Surface finish dependent; repeated cleaning can affect gel coatings	**Dense, non-porous surface; compatible with anti-graffiti**
Maintenance requirements	Periodic inspection and maintenance	Moderate depending on ageing	**Low maintenance by design**
Transport & instalation	Typically delivered fully assembled	Typically delivered fully assembled	**Can be delivered flat-pack and assembled on site (application dependent)**
Environmental	Varies by alloy and production process; EPDs available for some products	Varies by resin system; EPD limited	**Material-level EPDs available; high bio-based content; long service life and second life pathways**
Lifecycle	With ongoing maintenance, service life dependent on environment	Long service life; ageing dependent on formulation	**Long service life with very minimal interventions**