

Team M3

Material List

Material	Surface Area [m ²]	Density [kg/m ³]
FRP	1,376	1,550
Coated Fabric	577	1,806
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Representative Structural Thickness

Material	Low [cm]	Operational [cm]	High [cm]
FRP	6.37	7.06	7.73
Coated Fabric	1.09	1.25	1.46
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Manufactured Material Cost

Material	Low [USD/Tonne]	Typical [USD/Tonne]	High [USD/Tonne]
FRP	\$7,500	\$8,200	\$9,500
Coated Fabric	\$7,200	\$9,500	\$13,500
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Characteristic Capital Expenditure (CCE)

CCE = Total Surface Area (m²) x Representative Structural Thickness (m) x Density of Material (kgm⁻³) x Cost of Manufactured Material per unit Mass (\$kg⁻¹).

Material	RST [cm]	MMC [USD/Tonne]	CCE/material [\$]	TOTAL CCE [\$]
FRP	7.73	\$8,200	\$1,351,897	\$1,475,641
Coated Fabric	1.25	\$9,500	\$123,745	

Notes/Comments

RST for FRP judged high due to additional reinforcement (center section) due to twisting and torsion witnessed during testing