

Team SEWEC

Material List

Material	Surface Area [m ²]	Density [kg/m ³]
HDPE	1,775	970

Representative Structural Thickness

Material	Low [cm]	Operational [cm]	High [cm]
HDPE	2.36	2.75	3.15
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Manufactured Material Cost

Material	Low [USD/Tonne]	Typical [USD/Tonne]	High [USD/Tonne]
HDPE	\$6,000	\$7,900	\$12,000
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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 [\$]
Steel	2.75	\$7,900	\$374,050	\$374,050

Notes/Comments