Kontain GCL Heavy

Woven/nonwoven composite base

A reinforced clay liner with a woven/nonwoven composite carrier for additional protection during installation.

The 4,000 g/m² grade combines a 210 g/m² nonwoven cover with a 320 g/m² composite carrier.

Dry bentonite	≥4,000 g/m²
Composite carrier	Woven reinforcement + nonwoven protection
Static puncture	≥2,500 N

Technical properties

Property	Test method	Value
Dry bentonite mass	ASTM D5993	≥4,000 g/m²
Cover / composite carrier mass		210 / 320 g/m²
Carrier constituents		120 g/m² woven + 200 g/m² nonwoven
Unmodified natural sodium bentonite swell	ASTM D5890; reagent water	≥24 mL/2 g
Fluid loss	ASTM D5891	≤18 mL
Static puncture	EN ISO 12236	≥2,500 N
Peel strength	ASTM D6496	360 N/m
Hydraulic conductivity	ASTM D5084	≤3.0×10^{-11} m/s
Index flux, q10	ASTM D5887	≤2.7×10^{-9} (m³/m²)/s
Hydrated peak internal shear at 10 kPa normal stress	ASTM D6243	≥35 kPa

Data basis

Properties apply to the 4,000 g/m² composite-carrier construction. Swell index is measured on the unmodified natural sodium bentonite.

Application limits

Use direct crushed aggregate up to 25 mm only with accepted aggregate chemistry and a verified placement method. Exclude lime-treated material and unverified limestone or carbonate-bearing fill. Keep plant off exposed GCL. Peak internal shear is not a residual design strength or an interface-friction value.