

AGRU GeoClay®

NN66

AGRU America's GeoClay NN66 is an reinforced needle-punched geosynthetic clay liner that comprises a uniform layer of granular bentonite that is encapsulated between two nonwoven geotextiles. These products are intended for moderate to steep slopes and moderate- to high-load applications, where increased internal shear strength is required.

GEOTEXTILE COMPONENT

| GEOTEXTILE PROPERTY | TEST METHOD | FREQUENCY | MINIMUM AVERAGE ROLL VALUE |
|--|-------------|--|----------------------------|
| Upper Nonwoven, Mass/Unit Area, oz/yd ² (g/m ²) | ASTM D5261 | 25,000 yd ² (20,000m ²) | 6.0 (200) |
| Lower Nonwoven, Mass/Unit Area, oz/yd ² (g/m ²) | ASTM D5261 | 25,000 yd ² (20,000m ²) | 6.0 (200) |

BENTONITE PROPERTY¹

| BENTONITE PROPERTY ¹ | TEST METHOD | FREQUENCY | MINIMUM AVERAGE ROLL VALUE |
|---------------------------------|-------------|-----------------------|----------------------------|
| Swell Index, ml/2 g min | ASTM D5890 | 50 tonnes | 24 |
| Moisture Content, % | ASTM D5993 | 5,000 yd ² | 12% max |
| Fluid Loss, ml | ASTM D5891 | 50 tonnes | 18 max |

FINISHED GCL PROPERTY

| FINISHED GCL PROPERTY | TEST METHOD | FREQUENCY | MINIMUM AVERAGE ROLL VALUE |
|--|-------------|--|----------------------------|
| Bentonite, Mass/Unit Area ² , lb/ft ² (kg/m ²) | ASTM D5993 | 5,000 yd ² (4,000m ²) | 0.75 (3.7) |
| Mass of GCL Area ² , lb/ft ² (kg/m ²) (7) | ASTM D5993 | 5,000 yd ² (4,000m ²) | 0.81 (4.0) |
| Tensile Strength ³ , lb/in (N/cm) | ASTM D6768 | 25,000 yd ² (20,000m ²) | 50 (87) |
| Peel Strength ³ lb/in (N/cm) | ASTM D6496 | 5,000 yd ² (4,000m ²) | 3.5 (6.1) |
| Hydraulic Conductivity ⁴ cm/sec max | ASTM D5887 | 30,000 yd ² (25,000m ²) | 5x10 ⁻⁹ |
| Index Flux ⁴ m ³ /m ² /sec max | ASTM D5887 | 30,000 yd ² (25,000m ²) | 1x10 ⁻⁸ |
| Internal Shear Strength ⁵ psf (kPa) | ASTM D6243 | Periodically | 500 (24) Typical |

SUPPLY INFORMATION

| ROLL SIZE | WIDTH | | LENGTH | | AREA | |
|-----------|-------|-----|--------|------|-----------------|----------------|
| | FT | M | FT | M | FT ² | M ² |
| | 15.5 | 4.7 | 150 | 45.7 | 2,325 | 216 |

Notes:

(1) Bentonite properties tests performed at a bentonite processing facility prior to shipment to GCL production facility.

(2) Reported at 0% moisture

(3) Tensile strength testing performed in MD using ASTM D 6768.

(4) Deaired, deionized water @5 psi maximum effective confining stress and 2 psi head pressure.

(5) Specimens are hydrated for 24 hours and sheared at 200 psf. Represent typical peak value.

Rolls weigh approximately 2,600 lbs, are supplied with two straps and wound on a 4.75" core.

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