


Test Report

| Product | HDPE Geomembrane | Specification | 2.0mm | | |
|--------------|--------------------------------|---|------------|---|------|
| Test Type | Leaving Factory Test | Test Date | 2013.7.14 | | |
| Test content | | | | | |
| No. | Test Item | Unit | Test Value | Standard Value | Note |
| 1 | Thickness(min) | mm | 2.01 | ≥2.0 | |
| 2 | Density(min) | g/cm ³ | 0.940 | ≥0.939 | |
| 3 | Yield Strength | N/mm | 29.2 | ≥29.0 | |
| 4 | Yield Elongation | % | 12.2 | ≥12.0 | |
| 5 | Breaking Strength | N/mm | 53.5 | ≥53 | |
| 6 | Breaking Elongation | % | 750 | ≥700 | |
| 7 | Tear Resistance | N | 256 | ≥249 | |
| 8 | Carbone Black Content | % | 2.2 | 2.0-3.0 | |
| 9 | Carbone Black Dispersion | 9 times in ten observation areas belong to Class one. | | Carbon black dispersion(onle near spherical agglomerates) for 10 different views 9 in categorise 1 or 2 and 1 in category | |
| 10 | Puncture Resistance | N | 647 | ≥640 | |
| 11 | Oxidative induction time (OIT) | | | | |
| | Standard OIT/min | 105 | | ≥100 | |

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|--------------------------|---|--------------------------------|-----------------------|------------------------|--|
| | High pressure OIT/min | 402 | | ≥400 | |
| 12 | Water Vapour Permeability Coefficient | g.cm/cm ² .s. pa | 0.9×10 ⁻¹³ | ≤1.0×10 ⁻¹³ | |
| 13 | Dimensional Stability % | | 1.7 | ±2 | |
| 14 | Low temperature impact resistance at -70℃ | | Pass | Pass | |
| 15 | High stress crack resistance ,h | | 305 | ≥300 | |
| 16 | Standard OIT retained after 1600hrs % Or High pressure OIT retained after 1600hrs % | | 50 | ≥50 | |
| 17 | Oven aging at 85℃ (min) | | | | |
| | Standard OIT-% retained after 90days | | 55 | ≥55 | |
| | High pressure OIT-% retained after 90days | | 80 | ≥80 | |
| Comprehensive Assessment |  <p>Implement Standard: GRI-GM13</p> | | | | |

Inspector: 质检员2号

Checker: 郑晓英

Test Report


| Product | HDPE Geomembrane | Specification | 1.5mm | | |
|--------------|--------------------------------|---|------------|---|------|
| Test Type | Leaving Factory Test | Test Date | 2013.7.14 | | |
| Test content | | | | | |
| No. | Test Item | Unit | Test Value | Standard Value | Note |
| 1 | Thickness(min) | mm | 1.51 | ≥1.5 | |
| 2 | Density(min) | g/cm ³ | 0.940 | ≥0.939 | |
| 3 | Yield Strength | N/mm | 23 | ≥22 | |
| 4 | Yield Elongation | % | 12.5 | ≥12 | |
| 5 | Breaking Strength | N/mm | 41 | ≥40 | |
| 6 | Breaking Elongation | % | 730 | ≥700 | |
| 7 | Tear Resistance | N | 188 | ≥187 | |
| 8 | Carbone Black Content | % | 2.2 | 2.0-3.0 | |
| 9 | Carbone Black Dispersion | 9 times in ten observation areas belong to Class one. | | Carbon black dispersion(only near spherical agglomerates) for 10 different views 9 in category 1 or 2 and 1 in category | |
| 10 | Puncture Resistance | N | 481 | ≥480 | |
| 11 | Oxidative induction time (OIT) | | | | |

HONGXIANG

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| | | | | | |
|--------------------------|---|---|-----------------------|----------------------------|--|
| | Standard OIT/min | 115 | | ≥ 100 | |
| | High pressure OIT/min | 410 | | ≥ 400 | |
| 12 | Water Vapour Permeability Coefficient | $\text{g} \cdot \text{cm}^2 \cdot \text{s} / \text{pa}$ | 0.9×10^{-13} | $\leq 1.0 \times 10^{-13}$ | |
| 13 | Dimensional Stability % | 1.7 | | ± 2 | |
| 14 | Low temperature impact resistance at -70°C | Pass | Pass | | |
| 15 | Stress crack resistance ,h | 305 | | ≥ 300 | |
| 16 | Standard OIT retained after 1600hrs % Or High pressure OIT retained after 1600hrs % | 50 | | ≥ 50 | |
| 17 | Oven aging at 85°C (min) | | | | |
| | Standard OIT-% retained after 90 days | 55 | | ≥ 55 | |
| | High pressure OIT-% retained after 90 days | 80 | | ≥ 80 | |
| Comprehensive Assessment |  Implement Standard: GRI-GM13 | | | | |

Inspector: 质检员2号

Checker: 郑晓英