# ▣ Quality specification (Titan Eco)

## Gloss

| Item | Unit | Test method | 80g | 90g | 95g | 100g | 105g | 113g | 118g | 128g | 135g | 140g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caliper | ㎛ | Tappi 411 | 64 | 72 | 76 | 80 | 84 | 90 | 95 | 103 | 108 | 112 |
| Brightness | % | Tappi 525 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Whiteness | % | Tappi 560 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| Opacity | % | Tappi 519 | 88 | 90 | 91 | 92 | 92 | 93 | 94 | 94 | 95 | 95 |
| Gloss | % | Tappi 480 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Roughness | ㎛ | Tappi 555 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |

| Item | Unit | Test method | 148g | 157g | 170g | 180g | 200g | 218g | 230g | 250g | 270g | 300g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caliper | ㎛ | Tappi 411 | 120 | 127 | 140 | 149 | 180 | 196 | 211 | 231 | 251 | 284 |
| Brightness | % | Tappi 525 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Whiteness | % | Tappi 560 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| Opacity | % | Tappi 519 | 96 | 96 | 96 | 96 | 97 | 97 | 97 | 98 | 98 | 98 |
| Gloss | % | Tappi 480 | 74 | 74 | 74 | 74 | 72 | 72 | 72 | 72 | 72 | 72 |
| Roughness | ㎛ | Tappi 555 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |

| Item | Caliper | Brightness | Whiteness | Opacity | Gloss | Roughness |
|---|---|---|---|---|---|---|
| Tolerance | ±5% | ±3 points | ±3 points | Equal or greater | ±5 points | Equal or less |

# ▣ Quality specification (Titan Eco)

## Matt

| Item | Unit | Test method | 80g | 90g | 95g | 100g | 105g | 113g | 118g | 128g | 135g | 140g | 148g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caliper | μm | Tappi 411 | 71 | 80 | 85 | 90 | 95 | 102 | 107 | 116 | 124 | 130 | 145 |
| Brightness | % | Tappi 452 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Whiteness | % | Tappi 560 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 |
| Opacity | % | Tappi 519 | 87 | 89 | 90 | 91 | 92 | 93 | 94 | 94 | 94 | 96 | 96 |
| Gloss | % | Tappi 480 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Roughness | μm | Tappi 555 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |

| Item | Unit | Test method | 157g | 170g | 180g | 200g | 218g | 230g | 235g | 250g | 270g | 300g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caliper | μm | Tappi 411 | 155 | 161 | 177 | 198 | 229 | 230 | 235 | 257 | 283 | 320 |
| Brightness | % | Tappi 452 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Whiteness | % | Tappi 560 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 |
| Opacity | % | Tappi 519 | 96 | 97 | 97 | 97 | 97 | 98 | 98 | 98 | 98 | 98 |
| Gloss | % | Tappi 480 | 37 | 37 | 37 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| Roughness | μm | Tappi 555 | 2.5 | 2.5 | 2.5 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |

| Item | Caliper | Brightness | Whiteness | Opacity | Gloss | Roughness |
|---|---|---|---|---|---|---|
| Tolerance | ±5% | ±3 points | ±3 points | Equal or greater | ±5 points | Equal or less |