Table 60.1. Variables of the tension of the different threads by means of several types of magnets.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Type of canvas | Magnet grade | Size  (mm) | Clamping force  (N)\* | Maximum operating temperature (°C) | Initial force  (kG) | Force after 24 hours (kG) | N |
| Lipari (synthetic) 260 g/m² | N45 | 8 × 8 × 4 | 14.7 | 80 | 0.200 | 0.200 | 1.96 |
| N42 | 10 × 10 × 3 | 16.7 | 80 | 0.390 | 0.390 | 3.82 |
| 45SH | 25 × 6 × 2 | 16.7 | 150 | 0.310 | 0.310 | 3.03 |
| N45 | 20 × 10 × 2 | 20.6 | 80 | 0.270 | 0.270 | 2.64 |
| Ispra (synthetic) 130 g/m² | N45 | 8 × 8 × 4 | 14.7 | 80 | 0.255 | 0.255 | 2.49 |
| N42 | 10 × 10 × 3 | 16.7 | 80 | 0.390 | 0.390 | 3.82 |
| 45SH | 25 × 6 × 2 | 16.7 | 150 | 0.310 | 0.310 | 3.03 |
| N45 | 20 × 10 × 2 | 20.6 | 80 | 0.235 | 0.235 | 2.30 |
| Cotton (natural) 320 g/m² | N45 | 8 × 8 × 4 | 14.7 | 80 | 0.200 | 0.200 | 1.96 |
| N42 | 10 × 10 × 3 | 16.7 | 80 | 0.360 | 0.360 | 3.52 |
| 45SH | 25 × 6 × 2 | 16.7 | 150 | 0.340 | 0.340 | 3.33 |
| N45 | 20 × 10 × 2 | 20.6 | 80 | 0.315 | 0.315 | 3.08 |
| Flax 2297 (natural) 170 g/m² | N45 | 8 × 8 × 4 | 14.7 | 80 | 0.235 | 0.235 | 2.30 |
| N42 | 10 × 10 × 3 | 16.7 | 80 | 0.330 | 0.330 | 3.23 |
| 45SH | 25 × 6 × 2 | 16.7 | 150 | 0.235 | 0.235 | 2.30 |
| N45 | 20 × 10 × 2 | 20.6 | 80 | 0.290 | 0.290 | 2.84 |

\*The approximate maximum force between two magnets when they are in direct contact.

Table 60.2. Tension measurements of traditional and magnet interventions, before and after RH oscillations.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Tension before intervention  (N/cm) | Tension after traditional intervention  (N/cm) | Tension of traditional intervention after RH oscillations\*  (N/cm) | Tension after intervention with N45† magnets (N/cm) | Tension of intervention with N45 magnets† after RH oscillations\* (N/cm) |
| Model A: Lipari synthetic fabric (260 g/m²) and a preparation of Talens acrylic gesso | | | | | |
| Thread-by-thread suture | 0.1 | 0.8 | 0.5 | 3.0 | 2.9 |
| Textile intarsia | 0.0 | 1.0 | 0.7 | 2.8 | 2.6 |
| Thread-bridge reinforcements | 0.2 | 0.7 | 0.5 | 3.2 | 3.0 |
| Model B: Lipari synthetic fabric (130 g/m²) and a preparation of plaster (calcium sulfate) and rabbit-skin glue | | | | | |
| Thread-by-thread suture | 0.1 | 1.1 | 0.6 | 3.1 | 3.0 |
| Textile intarsia | 0.0 | 0.9 | 0.4 | 3.0 | 2.8 |
| Thread-bridge reinforcements | 0.0 | 0.8 | 0.5 | 2.9 | 2.8 |
| Model C: Cotton fabric (320 g/m²) and a preparation of plaster, chalk, and PVA latex | | | | | |
| Thread-by-thread suture | 0.1 | 0.9 | 0.6 | 3.3 | 3.1 |
| Textile intarsia | 0.2 | 1.0 | 0.6 | 3.5 | 3.3 |
| Thread-bridge reinforcements | 0.1 | 0.7 | 0.4 | 3.1 | 2.9 |
| Model D: Linen 2297 (170 g/m²) and industrial preparation with vinyl resin (Modostuc) | | | | | |
| Thread-by-thread suture | 0.1 | 0.6 | 0.3 | 2.9 | 2.8 |
| Textile intarsia | 0.0 | 0.8 | 0.4 | 2.8 | 2.6 |
| Thread-bridge reinforcements | 0.0 | 0.7 | 0.4 | 3.1 | 2.9 |

\*RH was varied from 50% to 80%.

†20 × 10 × 2 mm.