

Technical Datasheet FLOWER

KAIROS Preform



Description of the fibres

| TYPE | Combed FLAX | PLA noir |
|------------------------------|-------------|----------|
| ORIGIN | UE | UE |
| Composition (%) | 40 | 60 |
| Fiber Length (mm) | 60 | 60 |
| Density (g/cm ³) | 1,45 | 1,25 |

Description of the fabric

| | |
|----------------------------------|----------------|
| Areal Weight (g/m ²) | 100 ± 10 |
| Thickness (mm) | 0,25 ± 0,05 |
| Density (g/cm ³) | 0,40 ± 0,04 |
| Width (cm) | 50 |
| Placement method | Carding |
| Binding style | Slight Heating |
| Treatment | No |

Tensile Properties of the dry material

| | MD | CD |
|----------------------|------------|-------------|
| Maximum strenght (N) | 60 ± 25 | 4,5 ± 0,5 |
| Stress (Mpa) | 3,5 ± 1,5 | 0,30 ± 0,05 |
| Standards | ISO 9073-3 | |

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Description of the processed material



Description of the transformation process

| | |
|------------------------------|--|
| Process | KAIRLIN [®] ThermoCompression |
| Ply | 24 |
| Grammage (g/m ²) | 3010 ± 300 |
| Relative density | 1,07 ± 0,01 |
| Fibre volume (%) | 29 |

Tensile properties

| | MD | CD |
|-----------------|-------------|------------|
| E Modulus (Mpa) | 8060 ± 1300 | 3360 ± 560 |
| Strain (Mpa) | 78 ± 3 | 33 ± 1,5 |
| Stress (%) | 1,6 ± 0,3 | 1,5 ± 0,17 |
| Standards | ISO 527-2 | |

Flexural properties

| | MD | CD |
|-----------------|------------|------------|
| E Modulus (Mpa) | 5550 ± 320 | 3350 ± 200 |
| Strain (Mpa) | 110 ± 5 | 58 ± 3 |
| Stress (%) | 2,9 ± 0,3 | 3,0 ± 0,2 |
| Standards | ISO 14125 | |