

## MECHANICAL PROPERTIES

Neular profiles are produced from plastic packages sourced from nutrition industry. Raw material is thermo-treated to eliminate the organic material and extruded into various profiles.

Neular is mainly composed of HDPE, LDPE, PP and PS.

### Neular Craft:

|                         |             |                                                                   |
|-------------------------|-------------|-------------------------------------------------------------------|
| Flexural properties     | EN 408      | Flexural modulus (N/mm <sup>2</sup> )                             |
|                         |             | -50°C 1843                                                        |
|                         |             | 22°C 795                                                          |
|                         |             | 60°C 452                                                          |
| Density                 |             | 0,75 g/cm <sup>3</sup>                                            |
| Linear expansion        |             | 0,069 mm/m/°C **                                                  |
| Flammability class      | ISO 13501-1 | E                                                                 |
| UV-impairment           | ASTM G154   | ΔE=1,1 (no damage) *                                              |
| Water absorption        | ISO 62      | 0,17%                                                             |
| Sound isolation         | EN 1793-2   | B3                                                                |
| Resistance to chemicals |             | no damage: white spirit, lighter fluid,<br>bleach, hot baking oil |
| Toxity report           |             | non-toxic                                                         |

### \* UV-impairment

Plastrex Europe OÜ UV-tests were carried out under standard conditions (ASTM G154) over a period of time correlating to approx. 10 years naturel sunlight. ΔE indicates the change in colour-coordinates (L\*, a\*, b\*)

## Neular Natural deck additional mechanical properties:

|                                            |                                          |
|--------------------------------------------|------------------------------------------|
| Resistance to UV irradiation               | EN 438-2:2016 (level 4-5)                |
| Scratch resistance                         | EN438-2:2016 (level 5)                   |
| Abrasion resistance                        | EN 14354 (>= 3000 turns)                 |
| Resistance to artificial weathering        | EN 438-2:2016 (level 4-5)                |
| Anti-slip property                         | DIN 51130 (level 10)                     |
| Bending strength and modulus of elasticity | EN 15534-1:2014 – 1200 kg/m <sup>2</sup> |

Film composition: substrate printed decor film, impregnation transparent EB-curable resins, coating transparent UV stable EB-curable resins. All used resins are solvent- and formaldehyde free, release film PP film.

Warranty 15 years.

## Neular Natural T&G profile, planks, beams additional mechanical properties of the exterior film:

Class MX - classic outdoor film for Northern and Middle Europe. UV-stability warranty 10 years.

Class PX - It is a unique exterior film which lasts longer outdoors. Especially in Southern Europe or similar climates. The film features improved performance in all aspects of the product construction which results in better weatherability and longer product life.

UV-stability warranty 15 years most countries in Northern and Central Europe, 10 years g. France, Spain, Italy, Russia and Turkey

Class FX - the premium product which can be used all over the world without restrictions and benefits from additional special features such as anti-graffiti properties. It is especially designed and formulated for harsh tropical and subtropical climates i.e. Australia, India, North- and Middle America and South East Asia.

UV-stability warranty 15 years for Europe.

### \*\* Linear expansion

Due to temperature fluctuations Neular material will experience minimal expansion and contraction 0,069 mm/m/°C. Simply, when temperature rises 1°C Neular boards expand 0,069 mm per 1 m.

### Workability

Neular profiles are very easy to work with – they can be sawn, cut, nail and staple. Drilling with low speed and lead-holes are advised. Neular material does not absorb moisture or dirt, therefore regular water is sufficient for cleaning for most cases. If needed conventional cleaning chemicals can be used