

DECLARATION OF PROPERTIES no. 1311

NOVATOP SOLID

Identification code
of the product type:

11SM

Intended use:

The panels are designed as bearing elements in building structures and timber assemblies, such as wall, ceiling and roof elements. The panels are designed only in operation classes 1 and 2 in accordance with EN 1995-1-1/A1.

Manufacturer:

AGROP NOVA a. s., Ptenský Dvorek 99, 798 43 Ptení, the Czech Republic,
Telephone: +420 582 319 235, Tax ID: CZ26243237

The system of assessment and
verification of properties:

System 1

European document
for assessment:

EAD 130005-00-0304, issued in March 2015

European Technical Assessment:

ETA 11/0310 of 03/29/2017

Technical Assessment
Body:

Technický a zkušební ústav stavební Praha, s.p.
(Technical and Test Institute for Construction Prague)

The notified body:

Technický a zkušební ústav stavební Praha, s.p.
(Technical and Test Institute for Construction Prague)

Mechanical properties of the materials used

| Basic requirements | | The testing method | | |
|---|--|--------------------|-------|------------------|
| Basic requirements | | C 16 | C 24 | ČSN EN 338 |
| Mechanical behaviour perpendicular to the panel plane [N/mm²] | | | | |
| $f_{m,k}$ | Bending strength | 18,5 | 24,0 | EAD, čl. 2.2.1.1 |
| $f_{t,90,k}$ | Tensile strength | 0,4 | 0,5 | ČSN EN 14080 |
| $f_{c,90,k}$ | Compression strength | 2,2 | 2,5 | ČSN EN 14080 |
| $f_{v,90,k}$ | Shear strength perpendicular to board fibres | 0,8 | 0,8 | EAD, čl. 2.2.1.3 |
| $f_{v,90,k}$ | Shear strength parallel to board fibres (reduced) | 2,1 | 2,7 | ČSN EN 14080 |
| $E_{mean,0}$ | Modulus of elasticity parallel to board fibres | 8400 | 11500 | EAD, čl. 2.2.1.1 |
| $E_{m,90}$ | Modulus of elasticity perpendicular to board fibres | 280 | 300 | ČSN EN 14080 |
| $G_{mean,90}$ | Shear modulus of elasticity parallel to board fibres | 520 | 650 | ČSN EN 14080 |
| $G_{mean,9090}$ | Modulus of elasticity perpendicular to board fibres | 50 | 50 | EAD, čl. 2.2.1.1 |

Mechanical behaviour in the panel plane [N/mm²]

| | | | | |
|---------------|--|------|-------|------------------|
| $f_{m,k}$ | Bending strength | 18.5 | 24.0 | EAD, čl. 2.2.1.1 |
| $f_{t,90,k}$ | Tensile strength parallel to board fibres | 13.0 | 19.2 | ČSN EN 14080 |
| $f_{c,90,k}$ | Compression strength | 17.0 | 24.0 | ČSN EN 14080 |
| $E_{mean,0}$ | Modulus of elasticity parallel to board fibres | 8400 | 11500 | EAD, čl. 2.2.1.1 |
| $f_{v,90,k}$ | Shear modulus of elasticity parallel to board fibres calculated in the overall cross section | 1.7 | 1.7 | EAD, čl. 2.2.1.3 |
| $G_{mean,90}$ | Shear modulus of elasticity parallel to board fibres | 520 | 720 | EAD, čl. 2.2.1.3 |

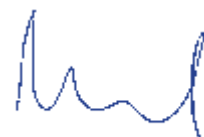
| | | | | |
|--|--|------------------|--|--|
| Creep and permanent load | k_{mod} and k_{def} according to ČSN EN 1995-1-1, Tables 3.1 and 3.2, are used. | | | |
| Dimensional stability | No changes in moisture content are allowed during the operation so as to avoid undesirable deformations. | | | |
| Operational stability | Operation class 1 and 2 according to ČSN EN 1995-1-1 | | | |
| Operation class 1 and 2 according to ČSN EN 1995-1-1 | Complies | EAD, čl. 2.2.1.8 | | |

| Declared properties of the materials used | The testing method | |
|---|---|-----------------------------------|
| Reaction to fire Glued laminated wood products | D-s2, d0 | EN 13501-1 + A1 |
| Reaction to fire Glued laminated wood products | The property has not been assessed | ČSN EN 13501-2 |
| Formaldehyde emission class | E1 (emission class) | ČSN EN 13986+A1 (ČSN EN 717-1) |
| Factor of diffusion resistance (μ) | 70 (dry) / 200 (wet) | ČSN EN ISO 10456 |
| Impact resistance | The soft body impact is assumed to be suitable for walls with at least 3 layers and a minimum thickness of 60 mm. | |
| Weighted airborne sound insulation (R_w) | The property has not been assessed | ČSN EN ISO 10140-2 |
| The property has not been assessed (Ln,w) | The property has not been assessed | ČSN EN ISO 10140-3 |
| Sound absorption | The property has not been assessed | ČSN EN ISO 354 |
| Heat transfer coefficient | The property has not been assessed ($\lambda = 0,13$ W/(m·K)) | ČSN EN ISO 10456 |
| Air permeability | The property has not been assessed | ČSN EN 12114 |
| Specific heat capacity | The property has not been assessed ($c_p = 1600$ J/(kg·K)) | ČSN EN ISO 10456 |

The properties of the above-stated product are in accordance with the set of declared properties. This Declaration of Properties is issued in accordance with Regulation (EU) no. 305/2011 under the sole responsibility of the aforementioned manufacturer.

Signed for and on behalf of the manufacturer:

In Ptení, on September 13, 2018



Ing. Mgr. Vladimír Crhonek
Managing Director of AGROP NOVA a.s.