



**TÜRK STANDARDLARI ENSTİTÜSÜ**  
**TÜRK STANDARDLARINA UYGUNLUK BELGESİ**  
**TURKISH STANDARDS INSTITUTION**  
**CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS**

Markanın Tanımı Description of the Mark  
TSE veya/or  veya/or T S E

**BELGE NUMARASI** 022438-TSE-12/02  
*REFERENCE NUMBER OF LICENCE*

**BELGENİN İLK VERİLİŞ TARİHİ** 07.07.2021  
*DATE OF FIRST ISSUE OF LICENCE*

**BELGENİN SON GEÇERLİLİK TARİHİ** 07.07.2025  
*LICENCE VALID UNTIL*

**BELGE SAHİBİ KURULUŞUN ADI** TEKNOPANEL ÇATI VE CEPHE PANELLERİ ÜRETİM  
*NAME OF THE LICENCE HOLDER* SANAYİ VE TİCARET ANONİM ŞİRKETİ

**BELGE SAHİBİ KURULUŞUN ADRESİ** ORGANİZE SAN.BÖLGE 7.CADDE NO:10 AKDENİZ  
*ADDRESS OF THE LICENCE HOLDER* MERSİN/TÜRKİYE

**ÜRETİM YERİ ADI** TEKNOPANEL ÇATI VE CEPHE PANELLERİ ÜRETİM SAN. VE TİC.  
*NAME OF THE MANUFACTURING PLACE* A.Ş.

**ÜRETİM YERİ ADRESİ** TURGUTLU 1.OSB 191.CADDE NO:19/1 SELVİLİTEPE/TURGUTLU  
*ADDRESS OF THE MANUFACTURING PLACE* MANİSA MANİSA / TÜRKİYE

**İPTAL EDİLEN BELGE NUMARASI (Varsa)** 022438-TSE-12/01  
*INDICATION OF SUPERSEDED LICENCE (if any)*

**TESCİLLİ TİCARİ MARKASI** teknopanel deltapan  
*REGISTERED TRADE MARK*

**İLGİLİ TÜRK STANDARDI** TS EN 14509 / 02.04.2014  
*RELATED TURKISH STANDARD*

**BELGE KAPSAMI**  
*SCOPE OF LICENCE*

SELF-SUPPORTING DOUBLE SKIN METAL FACED INSULATING PANELS

1- GALVANIZED STEEL FACED POLYURETHANE FILLED ROOF PANELS

Thickness: 40 mm, 50 mm

Steel Faces:

- Thickness Tolerance (TS EN 10143)
- Nominal - Yield Strength: min. 220 N / mm<sup>2</sup>

Properties of Core Material:

- Polyurethane (PUR)
- Thermal Conductivity ( $\lambda$ ): Max. 0,027 W/mK
- Density: 30  $\pm$  2 kg/m<sup>3</sup>
- Shear Strength of Core Material (fcv): min. 0.060 MPa

e-imzalı/e-signed

24.06.2024

On Behalf Of The Head Of Certification Center  
ŞİMA AKKAYA

DIRECTOR OF CONSTRUCTION MATERIALS  
SECTOR

\*This certificate also shows that the production place of the certified product meets the requirements of Institute.

\*This certificate under any circumstances cannot be changed, duplicated partially or in a way that makes it difficult to read and erasure cannot be done.

\*TSE CONSTRUCTION MATERIALS SECTOR DIRECTORATE \* Address: Necatibey Cad.No:112 06100 Bakanlıklar/ANKARA \* Telephone: 0312 416 63 79\* Fax: 0312-416 66 17

\*TSE HEAD OF CERTIFICATION CENTER; Address: Necatibey Cad. No:112 06100 Bakanlıklar/ANKARA – Telephone: 0 312 416 64 81 / 416 64 27, Fax:0 312 416 66 17 E-mail

:bmb@tse.org.tr , web : www.tse.org.tr





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(022438-TSE-12/02nolu belge devamı) : TEKNOPANEL ÇATI VE CEPHE PANELLERİ ÜRETİM SANAYİ VE TİCARET ANONİM ŞİRKETİ  
İLGİLİ TÜRK STANDARDI(RELATED TURKISH STANDARD) TS EN 14509 / 02.04.2014

- Shear Modulus of Core Material (G): min. 1,5 Mpa
- Compression Strength ( $\sigma_{10}$ ): min. 0,050 MPa

**Properties of Panels:**

- Creep coefficient for roof panels (t: 100.000 h,  $\Phi t$ ): max 1,5 (free load)
- Creep coefficient for roof panels (t: 2.000 h,  $\Phi t$ ): max 1,2 (snow load)
- Shear Strength After Long-term Loading (Reduced Shear Strength) (fcv - long term): t: 1.000 h, min. 0,020 MPa, t: 2.000 h, min. 0,020 MPa, t: 100.000 h, min. 0,020 MPa
- Cross panel tensile strength of Panel (fct) Min. 0,025 MPa
- Cross panel tensile modulus at elevated temperatures: Min. 0,025 MPa
- Bending Moment Capacity and Rigidity: Normal: Min. 1,0 kNm / m, Reverse: Min. 1,0 kNm / m
- Wrinkling Stress: Normal: Min. 75 MPa, Reverse: Min. 75 MPa
- Bending Moment Capacity over a Central Support: Normal: Min. 1,00 kNm / m, Reverse: Min. 1,00 kNm / m
- Wrinkling Stress over a Central Support: Normal: Min. 75 MPa, Reverse: Min. 75 MPa
- Reaction to Fire: Fire Class B-s3,d0 (K.D. 28.03.2023)

**2- GALVANIZED STEEL FACED POLYURETHANE FILLED WALL PANELS**

Thickness: 40 mm, 50 mm

**Steel Faces:**

- Thickness Tolerance (TS EN 10143)
- Nominal - Yield Strength: min. 220 N / mm<sup>2</sup>

**Properties of Core Material:**

- Polyurethane (PUR)
- Thermal Conductivity ( $\lambda$ ): Max. 0,027 W/mK
- Density:  $30 \pm 2$  kg/m<sup>3</sup>
- Shear Strength of Core Material (fcv): min. 0,060 MPa
- Shear Modulus of Core Material (G): min. 1,5 Mpa
- Compression Strength ( $\sigma_{10}$ ): min. 0,050 MPa

**Properties of Panels:**

- Cross panel tensile strength of Panel (fct) Min. 0,025 MPa
- Cross panel tensile modulus at elevated temperatures: Min. 0,025 MPa
- Bending Moment Capacity and Rigidity: Normal: Min. 1,0 kNm / m, Reverse: Min. 1,0 kNm / m
- Wrinkling Stress: Normal: Min. 75 MPa, Reverse: Min. 75 MPa
- Bending Moment Capacity over a Central Support: Normal: Min. 1,00 kNm / m, Reverse: Min. 1,00 kNm / m
- Wrinkling Stress over a Central Support: Normal: Min. 75 MPa, Reverse: Min. 75 MPa
- Reaction to Fire: Fire Class B-s3,d0 (K.D. 28.03.2023)

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