



**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**

<b>BELGE NUMARASI</b> REFERENCE NUMBER OF LICENCE	022438-TSE-10/02
<b>BELGENİN İLK VERİLİŞ TARİHİ</b> DATE OF FIRST ISSUE OF LICENCE	18.06.2019
<b>BELGENİN SON GEÇERLİLİK TARİHİ</b> LICENCE VALID UNTIL	18.06.2022
<b>BELGE SAHİBİ KURULUŞUN ADI</b> NAME OF THE LICENCE HOLDER	TEKNOPANEL ÇATI VE CEPHE PANELLERİ ÜRETİM SANAYİ VE TİCARET ANONİM ŞİRKETİ
<b>BELGE SAHİBİ KURULUŞUN ADRESİ</b> ADDRESS OF THE LICENCE HOLDER	ORGANİZE SAN.BÖLGE 7.CADDE NO:10 AKDENİZ MERSİN/TÜRKİYE
<b>ÜRETİM YERİ ADI</b> NAME OF THE MANUFACTURING PLACE	TEKNOPANEL ÇATI VE CEPHE PANELLERİ ÜRETİM SAN. VE TİC. A.Ş. SAKARYA ŞUBESİ
<b>ÜRETİM YERİ ADRESİ</b> ADDRESS OF THE MANUFACTURING PLACE	2. ORGANİZE SANAYİ BÖLGESİ 1. CADDE NO: 1 KARGALIHANBABA KÖYÜ 54300 HENDEK/SAKARYA SAKARYA / TÜRKİYE
<b>İPTAL EDİLEN BELGE NUMARASI (Varsa)</b> INDICATION OF SUPERSEDED LICENCE (if any)	022438-TSE-10/01
<b>TESCİLLİ TİCARİ MARKASI</b> REGISTERED TRADE MARK	teknopanel deltapan
<b>İLGİLİ TÜRK STANDARDI</b> RELATED TURKISH STANDARD	TS EN 14509 / 02.04.2014
<b>BELGE KAPSAMI</b> SCOPE OF LICENCE	

1-GALVANIZED STEEL FACED POLYURETHANE FILLED ROOFING PANELS

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: 32  $\pm$  2 kg/m<sup>3</sup>
- Shear Strength of Core Material (fcv): min. 0,06 MPa
- Shear Modulus of Core Material (G): min. 1,5 Mpa
- Compression Strength ( $\sigma$ m): min. 0,050 MPa

*e-imzalı/e-signed*

01.07.2021

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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**BELGE KAPSAMI ( 022438-TSE-10/02nolu 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

Properties of Panels:

- Creep coefficient for roof panels (t: 100.000 h,  $\Phi$ t): max 2,3 (free load)
- Creep coefficient for roof panels (t: 2.000 h,  $\Phi$ t): max 1,6 (snow load)
- Shear Strength After Long-term Loading (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. 0,040 MPa
- Bending Moment Capacity and Rigidity: Normal: Min. 1,00 kNm / m, Reverse: Min. 1,00 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: B S2 d0
- External Fire Performance: Broof (t1)

2-GALVANIZED STEEL FACED POLYURETHANE FILLED WALL PANELS

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: 32  $\pm$  2 kg/m<sup>3</sup>
- Shear Strength of Core Material (fcv): min. 0,06 MPa
- Shear Modulus of Core Material (G): min. 1,5 Mpa
- Compression Strength ( $\sigma$ m): min. 0,050 MPa

Properties of Panels:

- Shear Strength After Long-term Loading (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. 0,040 MPa
- Bending Moment Capacity and Rigidity: Normal: Min. 1,00 kNm / m, Reverse: Min. 1,00 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: B S2 d0

*e-imzalı/e-signed*

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