

THERMAL BREAK PLATES

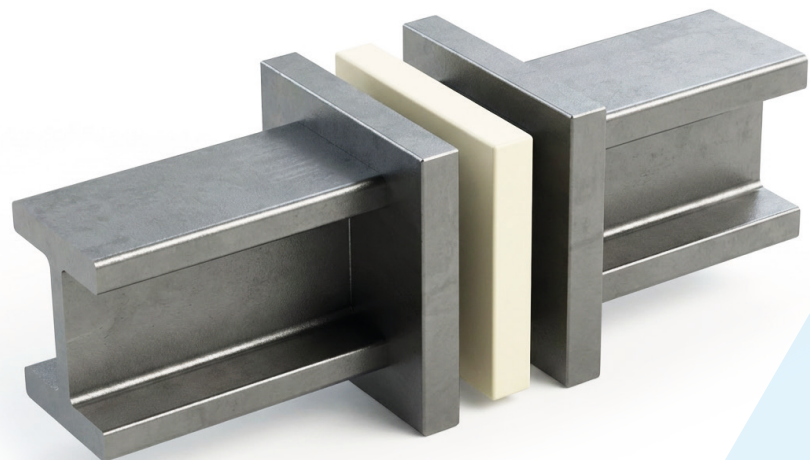
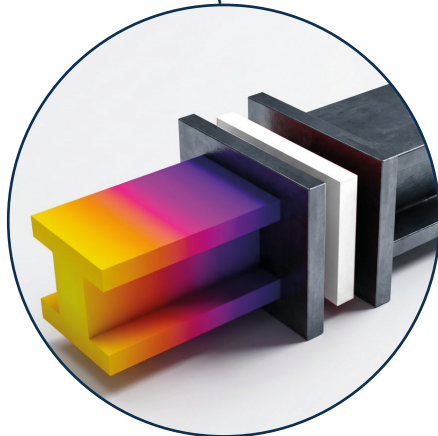
Technical data sheet Introduction

Thermal break plates are engineered to interrupt heat flow through structural elements, preventing thermal bridging at connection points. By separating exterior and interior steelwork with a low-conductivity layer, they reduce heat loss, stop cold surfaces from forming, and maintain consistent temperatures across the building envelope.

ISOPARTNER is proud to partner with TICO, a recognised expert in thermal break plate design, to deliver tailored solutions for complex project requirements. This collaboration ensures best-in-class products, comprehensive technical support for designers, and expert guidance on the correct specification, integration, and mitigation of thermal bridging in insulation solutions.

Thermal breaks will eliminate the risk of mould growth, condensation and resultant corrosion occurring due to thermal bridging in structural elements, making them essential for long-term building performance. ISOPARTNER provide clients with a complete solution which includes Thermal break washers to improve thermal break solution performance by up to 70%.

ISOPARTNER TICO thermal break plates are custom engineered for specific applications, manufactured to meet ISO 9001 and ISO 14001 standards, and accompanied by a Certificate of Conformance ensuring full traceability and compliance.



Key Features

- **Thermal Insulation:** Effectively reduces heat loss and prevents condensation by providing a barrier against thermal bridging.
- **Vibration Damping:** Incorporates materials that absorb and mitigate vibrations, enhancing structural integrity and occupant comfort.
- **Fire Resistance:** Certain models, offer A2 fire rating, ensuring compliance with stringent fire safety standards.
- **Compressive Strength:** Designed to withstand high loads, maintaining performance under structural stress.
- **Environmental Adaptability:** Suitable for use in various climates, providing insulation in both hot and cold conditions.

Technical Specifications:	Isop-CV-TB-300	Isop-CV-TB-FR
Thermal Conductivity	0.1332 W/m·K	0.23 W/m·K
Design compressive strength @ 23 degC	198 MPA	320 MPA
Compressive Strength @ 200 DegC	90 MPa	250 MPa
Density	1.5 g/cm ³	2.15 g/cm ³
Operating Temperature	-180°C to +200°C	-100°C to +500°C
Coefficient of linear expansion	20 x 1.0E6 / K	1 x 1.0E-6 / K
Water absorbson	0.49%	< 1%
Fire Rating	B – s1, d0	A2 - s1, d0
Thickness Options	5, 10, 15, 20, 25 mm	5, 10, 15, 20, 25 mm
Washers Sizes	M18, M20, M22, M24	M18, M20, M22, M24
Standard Sizes	Customisable	Customisable

Applications:

- **Structural Connections:** Used between steel, concrete, and masonry elements to prevent thermal bridging.
- **Building Facades:** Incorporated in curtain wall systems and balcony connections to enhance energy efficiency.
- **Industrial Installations:** Applied in plant equipment and structural supports to reduce heat transfer and vibration.

Compliance & Certification:

- **ISO 9001:** Quality Management Systems
- **ISO 14001:** Standard for fire classification of construction materials
- **EN 13501-1:** Fire classification of construction materials
- **BBA Certificate:** Full traceability from raw materials to finished product

Ordering Information:

For specific product codes, dimensions, and customisation options, please contact:

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