Load Capacity Statement

TFL Panel Systems & Hardware Components

Prepared by: Sherwood Shelving | **Date:** June 5, 2026 | **Version:** 1.1

1. Purpose & Scope

This document provides load capacity and performance information for the materials and hardware components used in Sherwood Shelving custom TFL Ready-To-Assemble (RTA) closet organizer systems. It is intended to support dealers and end clients in evaluating product suitability for their specific applications.

Sherwood Shelving manufactures custom closet organizer systems using 19mm Thermally Fused Laminate (TFL) panels, assembled with European-standard cam-and-dowel joinery. Units are available in both floor-mount and wall-suspended configurations. All systems are installed by authorized dealers per Sherwood Shelving installation specifications.

2. Industry Context

The custom closet organizer industry — including brands such as California Closets, Modifi, and Closet Factory — uses 19mm TFL panel construction with cam-and-dowel fastening as its standard system. Formal third-party load ratings for individual cam fittings and euro screws are not routinely published by hardware manufacturers in this category, as load capacity is a function of the complete installed system rather than any single component in isolation.

Key variables that govern system load capacity include: panel density, fastener penetration depth, number of fasteners per shelf, unsupported span, and wall anchor quality. Sherwood Shelving designs its systems with these variables in mind, and the hardware configurations described in this document represent current production specifications.

3. Component Load Capacity Reference

The table below summarizes each hardware component and panel material used in Sherwood Shelving systems, along with available load and performance data.

Component	Supplier / Part #	Load / Performance Notes
Suspension Bracket	TAG Hardware #300.3742 (L) #300.3742 (R)	Minimum 140 lbs per bracket (per equivalent Hettich industry specification). TAG brackets are equal or superior in gauge. Suspended units require one bracket for each gable.
Euro Screw-with-Shoulder (15mm)	TAG Hardware #300.3749	Threaded 15mm into the face side of the 19mm TFL gable panel. Face-side fastener engagement provides significantly higher pull-out resistance in particleboard compared to edge-side installation. The shoulder prevents over-penetration and ensures consistent clamping force.

Component	Supplier / Part #	Load / Performance Notes
Titus Cam Fitting with Outrigger	Richelieu #8644130	Outrigger design distributes shelf load across the panel face. Cam and housing are not the failure point under load testing — the dowel connector governs. System provides a vibration-proof connection per Titus specifications.
Titus Screw-In Dowel – Metal	Richelieu #640283	Standard fixed-shelf connection. 5mm × 7mm face engagement per gable. Standard configuration is two cam-and-dowel assemblies per shelf end. For shelf depths over 18", three cams per side are used to provide additional support.
Titus Double Dowel – Metal	Richelieu #6419	Heavy-duty connection for fixed shelves mounted on both sides of a shared gable. The double dowel passes fully through the 19mm gable, allowing it to bear on both panel faces simultaneously — one shelf on each side — maximizing shear and withdrawal resistance. Note: the shorter screw-in dowel (#640283) is required in this configuration because both sides of the gable are occupied. Where a fixed shelf is mounted on one side of a gable only, a longer screw-in dowel can be sourced to achieve deeper penetration and increased load capacity.
19mm TFL Panel	Tafisa	Thermally Fused Laminate on industrial-grade particleboard. Standard closet organizer material used industry-wide. Typical shelf capacity 50–75 lbs at 24"–36" span under static distributed load, consistent with BIFMA X5.9 shelf deflection criteria.

Note: Where formal rated load data is not published by the manufacturer, performance notes are based on equivalent industry specifications, engineering principles, and/or empirical testing by Sherwood Shelving.

4. Suspension System Performance

Sherwood Shelving manufactures both floor-mount and wall-suspended closet organizer units. Floor-mount units rest directly on the floor and transfer load through the base panels. Suspended units are hung from the wall via TAG Hardware Suspension Brackets fastened to the top of each gable panel, with the primary structural load path running through the wall anchors. Proper installation into wall studs or with appropriate hollow-wall anchors is required to achieve rated performance.

Suspension Bracket Capacity

Based on equivalent specifications from Hettich (a leading European hardware manufacturer), suspension brackets of this class are rated at a minimum of 140 lbs per bracket. Sherwood Shelving uses one bracket per gable as standard, providing a maximum combined capacity of 280 lbs per two-gable unit. It is recommended that suspended units not be loaded to exceed 140 lbs total per unit under normal use conditions.

Euro Screw Engagement

The TAG Euro Screw-with-Shoulder (15mm length) is installed into the face side of the 19mm TFL gable panel. Face-side fastener engagement provides significantly higher pull-out resistance in particleboard compared to edge-side installation. The shoulder feature prevents over-penetration and ensures consistent clamping force across all installations.

5. Fixed Shelf Connection System

Standard Configuration (Screw-In Dowel)

Fixed shelves are connected to gable panels using Titus System 6 Cam Fittings with outrigger (#8644130) paired with Titus Screw-In Metal Dowels (#640283). Standard configuration is two cam-and-dowel assemblies per shelf end; shelves deeper than 18" use three cams per side for additional support.

The Titus outrigger cam distributes load across the panel face. Under static load testing, the cam housing is not the failure point — the screw-in dowel governs. For fixed shelves installed on one side of a gable only, a longer screw-in dowel can be sourced to achieve deeper panel penetration and increased load capacity for heavier applications.

Heavy-Duty Configuration (Double Dowel)

For applications requiring elevated load capacity — such as pantry shelves, garage storage, or commercial applications — Sherwood Shelving specifies the Titus Double Dowel (#6419) in place of the standard screw-in dowel. The double dowel penetrates fully through the 19mm gable panel, enabling fixed shelves on both sides of a shared gable to bear on both panel faces simultaneously, maximizing shear and withdrawal resistance.

Note: when shelves are mounted on both sides of a gable using the double dowel, the shorter standard screw-in dowels are required (not the longer variant) because both sides of the panel are occupied. Dealers bidding on high-load applications are encouraged to specify the double dowel configuration and notify Sherwood Shelving at the time of order.

6. TFL Panel Load Capacity

Sherwood Shelving panels are manufactured from Tafisa Tafipan 19mm Thermally Fused Laminate (TFL) on industrial-grade particleboard core. TFL is the industry-standard material for custom closet organizer systems, offering a durable, moisture-resistant surface suited to residential and light commercial use.

Shelf load capacity is governed primarily by the unsupported span between gable panels and the distribution of load (concentrated vs. distributed). Reference performance for 19mm TFL shelves at standard closet spans:

Typical Span	Approx. Static Load Capacity	Notes
Up to 24" (61 cm)	75+ lbs distributed	Standard double-hang section; linens, folded clothing
25" – 36" (64–91 cm)	50–75 lbs distributed	Typical single-hang section; recommended standard range
36" – 48" (91–122 cm)	40–50 lbs distributed	Longer spans; consider a centre support gable for heavy loads

Values are based on static distributed load. Concentrated point loads, dynamic loads, or loads exceeding these ranges should be evaluated by a qualified engineer.

7. Limitations & Disclaimer

The load capacity information in this document is provided in good faith based on available manufacturer data, equivalent industry specifications, and internal product knowledge. The following limitations apply:

- This document does not constitute a formal structural engineering certification or a third-party tested load rating.
- Load capacities are valid only when systems are installed per Sherwood Shelving dealer installation instructions, including proper wall anchoring into studs or with appropriate anchors.
- Overloading, improper installation, or use outside of intended residential/light commercial closet organizer applications voids any implied performance.
- For applications requiring certified load ratings — such as commercial construction, institutional procurement, or permit-required installations — consultation with a licensed structural or mechanical engineer is required. Sherwood Shelving is a manufacturer, not an engineering firm, and cannot provide certified load ratings for specific project applications.

8. Contact & Additional Information

For questions about the hardware specifications or configuration options described in this document, dealers are welcome to contact Sherwood Shelving. We can provide guidance on available hardware options — such as double-dowel configurations, additional gable support, or shelf depth considerations — to help dealers make informed decisions for their projects. For applications that require certified load ratings, a licensed structural or mechanical engineer should be engaged.

Sherwood Shelving
Custom TFL Ready-To-Assemble Closet Organizers
Chilliwack, British Columbia, Canada