



NEW ClearPath™ with TPU Comfort Technology

What is TPU?

TPU- Thermoplastic Polyurethane, is a high performance polymer engineered for demanding applications.

TPU combines the best properties of rubber and plastic, but has no plasticizers to leach out and cause allergic reactions or embrittlement over time. Thus, products made from polyurethane film & sheet, retain long-term flexibility and outstanding shelf life.

What are the Physical Properties of TPU?

TPU possesses a combination of physical properties not available in other thermoplastic materials or synthetic rubbers, including:

- Superior Abrasion resistance for physically punishing, high-wear applications.
- Formulated UV resistance prevents yellowing or embrittlement.
- Elevated tensile strength provides reliability and durability over the life of the product in which the film is used.
- Good memory retention
- Durometers (hardness) from very soft to very hard
- High resistance to hydrocarbons, chemicals, ozone, bacteria, and fungus make it ideal for tough industrial environments.
- Inherently waterproof, for use in performance apparel, bedding, transdermal and wound care applications.
- Superior resistance to skin oils, yet has good "hand" or "feel" when in contact with the skin.
- Easily fabricated using thermal bonding, laminating, die cutting, radio frequency (RF) sealing or vacuum forming.
- Flame-retardant.

Typically, when two or more of these properties are required for an application, TPU is the material of choice.

What Other TPU Medical Applications are there?

TPU is typically used for parts requiring a high level of performance. Applications typically require a flexible material with a high degree of flex resistance, wearability and durability.

Many of the characteristics of TPU make it ideal for medical use. Medical applications include:

- IV site dressings.
- Transdermal patches.
- Thin film wound dressings.
- Cast and dressing covers.
- Surgical gowns & drapes.
- Puncture-resistant gloves.
- **Incontinence pads.**
- Compression dressings.
- Orthopedic gel insoles.
- Medical anti-shock trousers.
- **Gel-filled positioning pads.**
- Inflatable support bladders.
- Pressure infuser cuffs.
- Extraction bags.
- **Hospital mattresses, covers.**
- Orthodontic brace aligners.

Environmental Impact

TPU is more environmentally friendly than vinyl and other films. Recently, medical manufacturers of disposable medical products have begun to use TPU because of the toxic byproducts resulting from incinerating contaminated medical disposables fabricated from PVC. TPU is also readily recycled, and trim, and can be reground and reused if kept free from contamination.

Why TPU on the Broda ClearPath?

The NEW Look of Broda, The Evolution of Comfort!

Broda has become famous for our pressure redistribution seating through our strapping (Comfort Tension Seating™)

NOW, the NEW TPU Comfort Technology is the next evolution in Broda pressure redistribution seating providing:

- *A modern, refreshed look!*
- *Improved pressure redistribution*
- *Easier clean-ability*
- *Increased overall chair function and versatility*



Plus, the TPU offers uncompromised durability that Broda chairs are known for!



Exceptional durability!



TPU returns to its original shape within seconds!

Similar to our Comfort Tension Seating™, TPU Comfort Technology offers many benefits:

- contours to each individual's body for comfort, support and pressure redistribution to help prevent pressure sores
- prevents "bottoming out".
- creates heat and moisture dissipation by the perforations in the TPU seat and back.
- offers long term sitting comfort
- provides exceptional durability (cycle tested 100,000 cycles at 350 lbs)

The TPU also offers improved clean-ability for Broda chairs!

What are Customers Saying about TPU Comfort Technology?

"Very comfortable positioning chair for our resident. It's easy to clean"

-Tina Napolean, Rehab Dept, Buffalo, NY

"Our interest in testing the chair was to find better pressure relief for patients who have difficulty or who are unable to express themselves. For example, these patients suffer from dementia or head injury. With the Broda (ClearPath), our patients both posturally and behaviorally appeared less agitated."

-Karen Milovich, COTA, Buffalo, NY

Resident's documented heat and moisture control:

PRE-Broda trial = Poor

During Broda trial = Very Good

-Jeanette DeChick, OTR/L, Auburn, NY

Pressure Mapping Case Study Summary

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- TPU- perforated surface (216 perforations), upright position, 1" Broda foam pad with terry cover.

The following outlines the results of a pressure study performed with a Tekscan Model 5330- 32 x 32 Element Sensory Array.

Peak Pressure (mmHg) – Highest reading recorded at one or more sensors

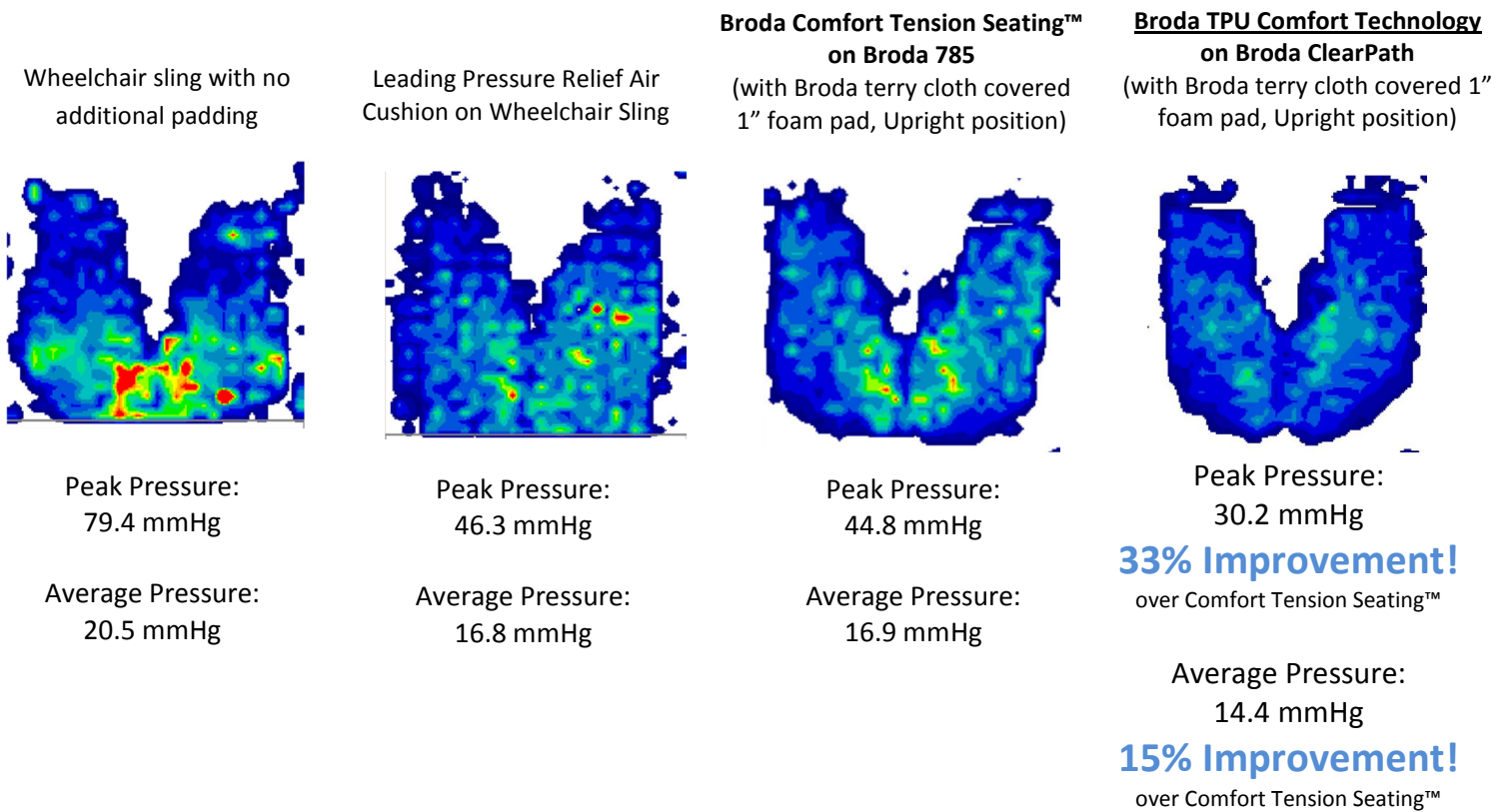
Average Contact Pressure (mmHg) – Mathematical average of all non-zero elements.

Test subject: Male, 5'6", 200 lbs. Test subject sat in chair for 1 hour. Pressure mapping images and data were taken at 5 minute intervals throughout the hour for each test surface.

Each chair had armrests removed. Test subject's feet remained on the floor (with knees at an approx. 90 degree angle to maintain a consistent body position throughout the entire test for accuracy purposes).

Surfaces and Results:

Peak and average pressures are average after one hour of sitting.



Results:

The Broda with TPU Comfort Technology, with terry cloth covered 1" foam pad achieves the lowest peak pressure readings of the above tests with improved pressure readings over Broda Comfort Tension Seating™.

The information and images in this document are for reference purposes only and depicts results applicable only to the specific test conditions and test subject that was studied.

Strength and Durability:

Although already proven in tensile strength and elongation, Broda has conducted testing to determine the durability of the TPU as a seating surface. The TPU went through static repeated testing at

- 350 lbs for 100,000 cycles

Cleaning the TPU:

The TPU offers easy, infection control friendly cleaning. The surface can be wiped clean with soap and water or general all-purpose cleaner. The TPU does not absorb any chemicals.

TPU can also be steam cleaned if desired. TPU also has microbe and fungal resistance, making it excellent for infection control friendly environments.