

		Face Masks	Neck Collars	Thumb and finger splints	Hand Splints	Wrist splints	Elbow splints for flexion, extension	Serial Static (Static progressive) Splints	Bases for dynamic splint	Body supports and body jackets	Foot drop splints	Foot splints (ambulatory)	Ankle stirrup splints	Knee splints for immobilization	Splints for spasticity	Anti-Microbial Built in (option)
Minimum Resistance to stretch	Polyform®	•	•	•	•	•	•									•
	Aquaplast®, ProDrape™-T	•	•	•	•	•		•	•		•					•
Moderate Resistance to Stretch	Polyflex II®, Kay-Splint II®, Orthoplast®II	•	•	•	•	•	•		•		•					•
	Aquaplast® T, Aquaplast® Original, Aquaplast® Watercolors™			•	•	•	•	•	•	•	•	•	•	•	•	•
	TailorSplint™		•	•	•	•	•	•	•	•	•	•	•	•	•	•
Maximum Resistance to Stretch	Ezeform®					•	•			•	•			•	•	
	Aquaplast® Resilient™-T, Aquaplast® Original, Resilient™							•	•	•	•	•	•	•		
	Synergy®					•	•			•				•	•	
	San-Splint® Orthoplast®					•	•			•	•	•	•		•	

\*All information referenced from PATTERSON MEDICAL 2014/2015 Professional Rehabilitation Equipment & supplies catalog Canada edition

### Minimum Resistance

Hand splints require a material that has a low resistance to stretch. There are, however, special cases in which a small splint requires a material that has a higher resistance to stretch, for example when splinting against gravity or for spasticity.

### Moderate Resistance

Medium-sized splints and orthotics, such as wrist splints, elbow splints, neck collars, and knee splints, require a material with a moderate amount of resistance to stretch.

### Maximum Resistance

Most large applications, such as back braces, foot drop splints, leg braces, and spasticity splints, require a material with high resistance to stretch

<b>Minimum Resistance to Stretch</b>	<p><b>Polyform®</b>  <b>Most conformable Rolyan® material</b></p> <ul style="list-style-type: none"> <li>• Stretches easily and conforms well to contours for an intimate fit</li> <li>• Minimal handling required; gentle, smooth motions achieve superior results</li> <li>• Handle on a horizontal plane and form splint in a gravity-assisted position</li> </ul>
	<p><b>Aquaplast®, ProDrape™-T</b>  <b>Most conformable Aquaplast® material</b></p> <ul style="list-style-type: none"> <li>• Stretches easily and conforms well to contours for an intimate fit</li> <li>• Smooth motions achieve best results</li> <li>• 100% memory allows repeated reheating and economical splint revisions</li> <li>• Translucent when heated, allowing identification of pressure points and of landmarks for positioning to provide maximum comfort</li> </ul>
<b>Moderate Resistance to Stretch</b>	<p><b>Polyflex II®, Kay-Splint II®, Orthoplast® II</b>  <b>The optimum combination of intimate conformability and resistant stretch</b></p> <ul style="list-style-type: none"> <li>• Stretches easily with excellent drapability; conforms well to contours</li> <li>• Minimal handling required; gentle, smooth motions achieve superior results</li> <li>• Handle on a horizontal plane and form splint in a gravity-assisted position</li> </ul>
	<p><b>Aquaplast®-T, Aquaplast® Original, Aquaplast®-T Watercolors™</b>  <b>The optimum Aquaplast® combination of intimate conformability and resistant stretch</b></p> <ul style="list-style-type: none"> <li>• Allows aggressive or gentle handling</li> <li>• Available in original formula, giving the fabricator an extra pair of hands while contouring the splint</li> <li>• 100% memory allows repeated reheating for economical splint revisions</li> <li>• Translucent when heated (White and pastel colors)</li> </ul>
	<p><b>TailorSplint™, Kay-Splint III®</b>  <b>Perfect balance between drapability and resistance to stretch</b></p> <ul style="list-style-type: none"> <li>• Adapts effectively to a wide range of applications, from hand splints to larger orthoses</li> <li>• Suitable for both the novice and experienced splinter</li> <li>• Non-stick coating</li> </ul>
<b>Maximum Resistance to Stretch</b>	<p><b>Ezeform®</b>  <b>Extremely strong and durable</b></p> <ul style="list-style-type: none"> <li>• Maximum resistance to stretch with superior draping and conforming qualities</li> <li>• Stays in place while critical contours are molded</li> <li>• Without protective coating, giving the fabricator an extra pair of hands during fabrication of the splint.</li> <li>• Excellent rigidity</li> </ul>
	<p><b>Aquaplast® Resilient™-T, Aquaplast® Original Resilient™</b>  <b>Aquaplast® with maximum controlled stretch</b></p> <ul style="list-style-type: none"> <li>• Also available in original formula without protective coating, giving the fabricator an extra pair of hands while contouring the splint</li> <li>• 100% memory allows repeated reheating for economical splint revisions</li> <li>• Translucent when heated</li> </ul>
	<p><b>Synergy®</b>  <b>Offers harmony between rigidity and moldability</b></p> <ul style="list-style-type: none"> <li>• Stays in place while critical contours are molded</li> <li>• Resistant to stretching and fingerprinting</li> <li>• Retains shape without reinforcement</li> </ul>
	<p><b>San-Splint®, Orthoplast®</b>  <b>High degree of control</b></p> <ul style="list-style-type: none"> <li>• Can be worked aggressively without fingerprinting</li> <li>• Excellent rigidity without reinforcement</li> <li>• Can be softened in a hot air (conventional) oven or in hot water</li> <li>• Without protective coating, giving the fabricator an extra pair of hands during fabrication of the splint</li> </ul>

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## **Resistance to Stretch – The extent to which a material resists pulling or stretching when heated.**

- **Minimum:** – Achieve intimate fit and very light handling required
- **Moderate:** Achieve exact fit and moderate handling to pull and hold material in place.
- **Maximum:** Achieve good fit, requires firm handling and Ideal for larger splints.

## **Drape/Conformability – The ease with which a material conforms to a surface when it is heated.**

- A high degree of drape enables a precise fit with minimal handling = increased comfort and reduced pressure areas.
- High drape materials are preferred by the skilled splinter who is confident with their handling skills.
- Minimal drape is often preferred when splinting larger areas as the material is easier to handle and provide more stability.

## **Bonding – The degree to which a material will stick to itself when heated.**

### **Uncoated**

- Effective bonding without the need to treat/prepare surface
- Bond to themselves to form a permanent bond
- Useful when adding outriggers, accessories or reinforcing strips

### **Coated**

- Allows material to temporary bond when warm
- Once cool the bond is not permanent
- Coating may be removed to create a permanent bond with spirits or by safely scratching the splint surface.
- Often easier to handle.
- If making a long term splint, coated materials may be preferable as they are easier to clean (less porous)

## **Thickness**

### **1/16"**

- Half the weight of 1/8" material
- Easy to cut when cold
- Ideal for paediatrics, finger splints and hand-based splints.

### **1/12"**

- Lightweight with moderate support
- Easy to cut when cold
- Ideal for paediatrics, finger, hand based splints and other areas requiring lightweight support

### **3/32"**

- Lightweight with moderate support
- Minimises bulkiness
- Perfect for a wide range of static and dynamic splints or progressive splints where less weight is desired (i.e. arthritis, thumb, hand, wrist and small area splints)

### **1/8"**

- Traditional thickness that provides stability and firm support
- Well-suited for positioning and holding joints, aiding abnormal tone, contractures and fracture bracing.
- Ideal for static, dynamic and progressive splinting of upper and lower extremities.

### **3/16"**

- Maximum rigidity
- Ideal for body jackets, abnormal tone splints, lower extremity splints and fracture brace

## **Perforation**

### **Solid**

- Maximum support

### **Perforated**

- Perforated (1%, 2%, Or 2.5%) for slight ventilation and added comfort without compromising rigidity.  
*Tip: Material softens quicker when heated*

### **UltraPerf, OptiPerf, SuperPerf**

- UltraPerf (13%), OptiPerf (19%), Lightweight provides greater ventilation for increased comfort and compliance
- SuperPerf (38% or 42%) for lighter weight, exceptional ventilation and greater comfort and compliance
- *Tip: for additional support, select a thicker material, with higher perforations.*  
*Tips: Higher perforations soften quicker when heated and cool faster*