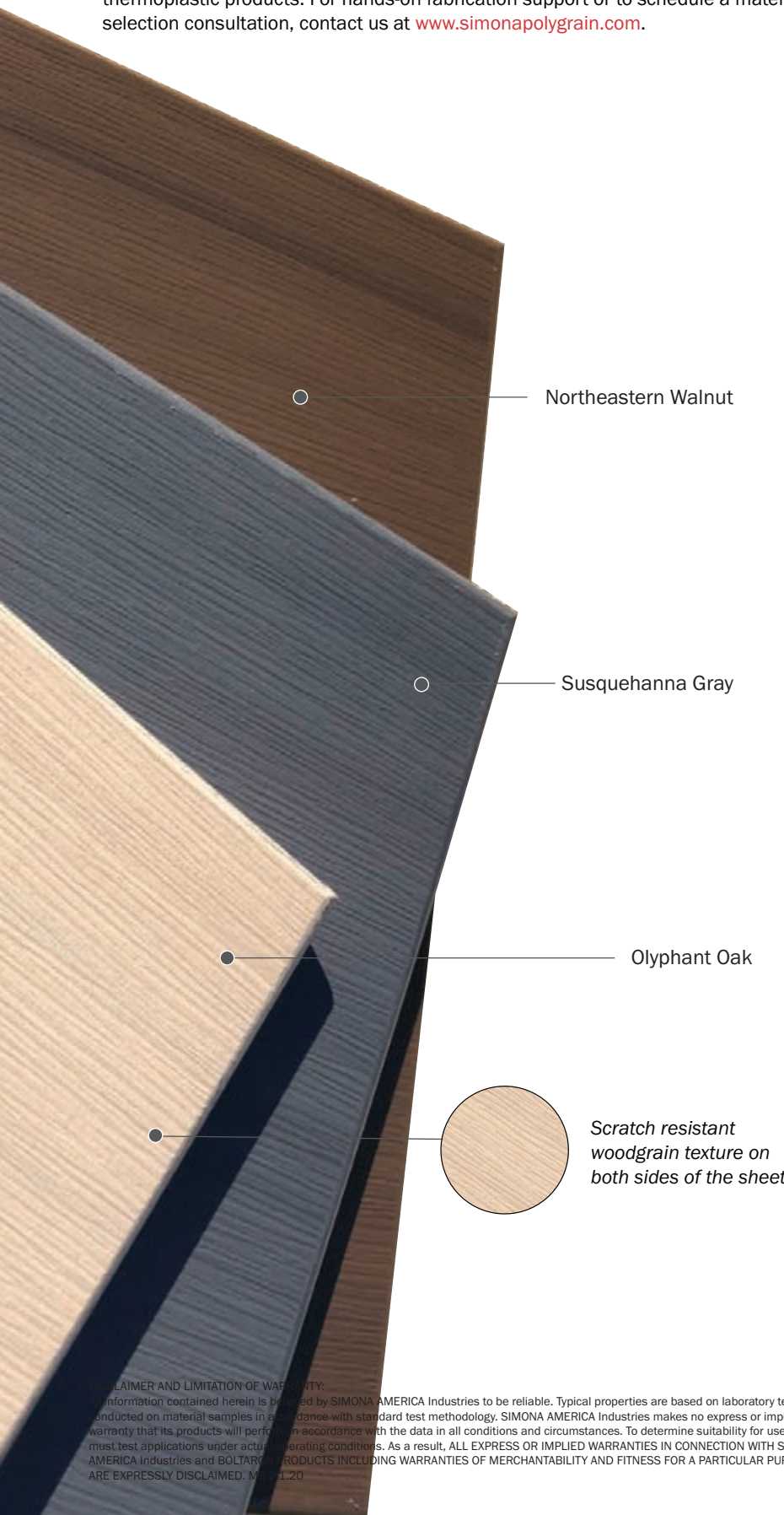


# Polygrain™ Fabrication Guide

## Technical Expertise and Innovation - Let's Work Together

SIMONA AMERICA Industries is a leading manufacturer and development partner for thermoplastic products. For hands-on fabrication support or to schedule a material selection consultation, contact us at [www.simonapolygrain.com](http://www.simonapolygrain.com).



Northeastern Walnut

Susquehanna Gray

Olyphant Oak

Scratch resistant woodgrain texture on both sides of the sheet

# polygrain™

## MACHINING AND FABRICATION RECOMMENDATIONS

### Tolerance Information

= ± 5% for gauges 1/4 in. up to 3/4 in.

### Approximate Weight

- = 1/2 in. (12.7 mm) – 90 lbs (40.8 kg)
- = 3/4 in. (19 mm) – 135 lbs (61.2 kg)

### Cutting and Sawing

SIMONA Polygrain can be cut using full range of saw types. Follow recommendations by tooling manufacturers for 'soft plastics.'

### Drilling

Standard twist drills work well. A negatively ground rake angle prevents drill jamming.

### Turning

Turn using as low a feed as possible with a large cutting depth. Indexable inserts can help provide a smooth cut.

### Milling and Routing







High RPM equipment typically used for metals works well. Feed rates between 10 and 16 per minute are recommended. If edge lift occurs, round over the edge with a 1-2 degree route to seal the seam.

### Conduct a Pre-production Trial

To make adjustments and ensure a good finish without scorching or melting the material.

### Hardware

Stainless steel fasteners and hardware recommended as well as screws designed for plastics. Allow for thermal expansion and contraction depending on temperature.

	Warm Bending
	Drilling
	Sawing
	Milling
	Welding
	Bolting

### Cleaning

Polygrain™ can be cleaned using standard household cleaning products. Safe to hose and powerwash.

## SIMONA AMERICA Industries

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