

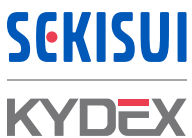
## Troubleshooting KYDEX® Thermoplastics Forming Issues for Holsters & Sheaths

### INTRODUCTION

The most common issue with forming KYDEX® Thermoplastic sheet is when the material is heated too quickly. This document serves as a troubleshooting guide, outlining common issues encountered with specific forming conditions.

### TROUBLESHOOTING

ISSUE	CAUSE	REMEDIES
Material Glossing	Heating material too quickly	<ol style="list-style-type: none"> <li>1. Lower heater temperature</li> <li>2. Increase distance between sheet and heater</li> </ol>
	Overheating material	<ol style="list-style-type: none"> <li>1. Reduce heating time</li> <li>2. Lower heater temperature</li> </ol>
Glossy Streaks	Uneven heating	<ol style="list-style-type: none"> <li>1. Ensure heating elements are working properly</li> <li>2. Utilize equipment with evenly spaced heating elements</li> <li>3. Seal any air gaps that may be creating cold spots in oven</li> </ol>
	Heater intensity	<ol style="list-style-type: none"> <li>1. Increase distance between sheet and heater</li> <li>2. Install aluminum foil between heat source and sheet to more evenly dissipate heat (see fig. 1 – 2)</li> </ol>
Poor Definition	Forming too cold	<ol style="list-style-type: none"> <li>1. Increase heating time</li> <li>2. Increase heater temperature</li> </ol>
	Insufficient vacuum	<ol style="list-style-type: none"> <li>1. Ensure vacuum source is working properly</li> <li>2. Check vacuum system for leaks</li> <li>3. Check that vacuum is pulling sufficient volume and pressure</li> </ol>
	Insufficient vacuum seal	<ol style="list-style-type: none"> <li>1. Utilize a flat vacuum base</li> <li>2. Increase blank size to ensure sufficient material under clamping frame</li> <li>3. Install foam on vacuum base to seal gap between sheet and base (Fig. 3 – 4)</li> </ol>
Webbing or Wrinkles	Excess material	<ol style="list-style-type: none"> <li>1. Reduce excess material (blank size) being formed</li> <li>2. Place small take-up blocks near the web or wrinkle, outside the trim line</li> </ol>
	Material is too hot	<ol style="list-style-type: none"> <li>1. Reduce heating time</li> <li>2. Lower heater temperature</li> </ol>
Material pulling from frame	Forming too cold	<ol style="list-style-type: none"> <li>1. Increase heating time</li> <li>2. Increase heater temperature</li> </ol>
	Insufficient material in frame	<ol style="list-style-type: none"> <li>1. Increase blank size</li> </ol>



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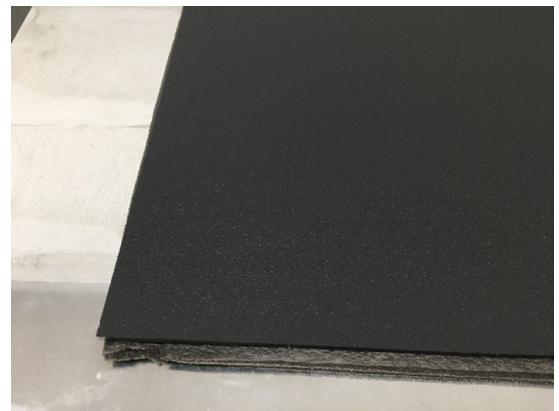
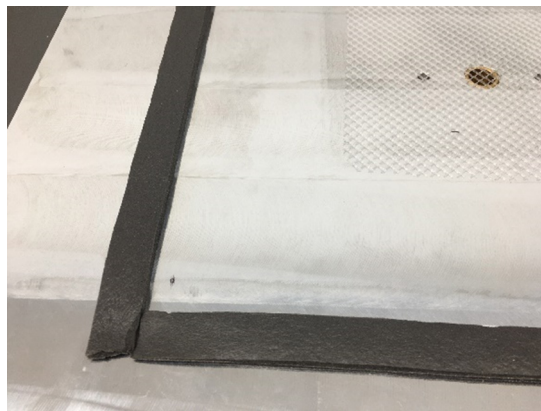
[kydex.com](http://kydex.com)

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### FIGURES



Figures 1 -2: Install aluminum foil to dissipate heat evenly throughout oven



Figures 3 – 4: Foam strips added to vacuum base to secure seal between base and sheet



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