

Grimco Technical Guide: Dialing In Your Heat Transfer Process

Introduction

Successful heat transfer application relies on the "Three Pillars": **Temperature, Pressure, and Time**. Because heat press readouts can vary between manufacturers or drift over time, "dialing in" your specific machine is essential to ensure a durable, retail-quality bond that won't peel or crack after washing.

Step 1: Calibrate Your Temperature

Do not rely solely on the digital display of your heat press.

- **Use an IR Temperature Gun:** Scan the upper platen while the press is at operating temperature.
- **Check for Cold Spots:** Measure the center and all four corners. A variance of more than **2–3°F** indicates uneven heating, which can lead to application failure.
- **Adjust to Actuals:** If your IR gun reads 315°F when the press is set to 325°F, adjust your machine settings upward to compensate for the difference.

Step 2: Set "Heavy" Pressure (The Paper Test)

Most high-quality formulas require "High" or "Max" pressure to drive the adhesive into the garment fibers.

- **The Paper Test:** Place a strip of standard printer paper in each of the four corners of the bottom platen and close the press.
- **Check Resistance:** Try to pull the paper out. If it slides out easily, your pressure is too low. You should feel significant resistance, and the paper should not move.
- **Machine Settings:** * **Manual Press:** Aim for an 8 or 9 on a 0-10 scale.
 - **Pneumatic/Automatic:** Set to exactly **60 PSI**.

Step 3: The "No-Teflon" Rule

Unless you are applying **DTF (Direct to Film)** or **Silicone** transfers, **DO NOT** use Teflon sheets, covers, or pillows.

- **The Reason:** Teflon and pillows act as insulators, preventing the necessary heat from reaching the transfer formula. This is the #1 cause of "plastisol" transfers failing to bond correctly.

Step 4: Formula-Specific Application Settings

Formula Type	Temperature	Time	Pressure	Peel Type
Athletic	325°F	7 Seconds	High (60 PSI)	Hot Peel
Fashion	350°F	7 Seconds	Max (60 PSI)	Hot Peel
Performance	300°F	7 Seconds	Max (60 PSI)	Hot Peel
DTF (Cotton)	300°F	10 Seconds	Max (60 PSI)	Hot Peel*
DTF (Polyester)	285°F	8 Seconds	Max (60 PSI)	Hot Peel*

**Note: DTF requires a 5-second "finishing press" with parchment paper after the initial peel.*

Step 5: The Test Press & Evaluation

Before starting a full production run, always perform a test press on a scrap garment of the same fabric.

1. **Pre-press:** Heat the garment for 3–5 seconds to remove moisture and wrinkles.
2. **Apply:** Use the settings above.
3. **The Stretch Test:** Once the garment has cooled slightly, stretch the fabric. The ink should stretch and return to its shape without cracking or lifting.
4. **Edge Check:** Use your fingernail to gently pick at the edges. If the ink lifts, increase your pressure or temperature by 5° and re-test.