

Calculating Flexographic Sheeted Polymer Distortion

There are a few things to know about distortion before we get into the numbers, things to consider.

- The repeat is driven by the gear or set dimension on a gearless press.
- Sticky back tape does not play a part in the distortion calculation.
- The calculation takes into account the stretch of the photopolymer only. The Mylar backing is excluded from the calculation. See image below.



The main component is to calculate your constant for .045, .067, .107 etc.... Once identified you can move to calculation of your distortion.

Distortion Calculations

Calculating the Constant

1. Determine your amount of photopolymer, in this instance we will use a .067 plate. As shown in the illustration .062" x 2 as this is a function of the diameter, equaling 0.124"
2. Take that value multiplied by pi (3.14159). $0.124 \times 3.14159 = .3895$. This is your constant for 0.067 polymer. **NOTE: 0.39 is a common and widely accepted value used in our industry.**

Calculating the Distortion

1. For this example we will use a 15" repeat. $15 - 0.3895 = 14.6105$
2. $14.6105 / 15 = 0.97403$ – or – 97.403%

Another way to calculate without using the constant

1. $15 / 3.14159 = 4.7747$
2. Subtract your polymer thickness from the Print diameter $4.7747 - .124 = 4.6507$
3. $4.6507 / 4.7747 = 0.974029$ – or 97.403%

If you have questions please reach out to our Tech Team at techsupport@andvre.com