

Stress Toys; Getting started

Ink

The most common problem most printers have with stress toys is ink adhesion. Standard inks commonly used for pens and plastic items will not adhere well to the spongy surface of stress toys, nor are they likely to produce prints with good colour and ink coverage. Printcolor has three inks suitable for stress toys they are: Series 660, Series 792, and Series 382. Each produce excellent results on stress toys and have different printing characteristics, which gives you choice and flexibility. Refer to the Technical Data Sheets for more information.

We recommend Series 382 for printing stress toys as it is a fast drying, 1-component ink with high opacity for good print coverage and colour, and is very easy to work with.

Preparation

Stress toys don't require any special pre-treatment or preparation when using Printcolor 382/660/792.

However, toys that are unusually sticky or slick may be contaminated with mould release agent that can reduce print adhesion - yellow toys seem prone to this. If you suspect contamination do an ink test, if adhesion is poor add hardener at a ratio of 10:1 and repeat the test. If adhesion is still suspect, wipe the print area with a cloth/glove dampened with metho before printing.

Printing

Make a product jig from car bog (it will destroy the item so make sure you have an extra!) or plaster. Bring the sides of the jig as far up the stress toy as possible without interfering with pad travel. This contains the toy ensuring it compresses evenly and consistently, minimising print distortion and break-up. We recommend a firm pad with a slight point for maximum print transfer and quality.

Setting up with Series 382 Series 382 does not require hardener, simply add medium or fast thinner (depending on environmental conditions) at approximately 10-15% by weight or until the ink flows easily without becoming runny, and start printing. Series 382 is extremely easy to use and maintain on the press as it's not prone to static/spider-webbing problems and can be run for several hundred prints before thinning is required again. Series 382 has good colour and opacity and is so fast drying that prints are almost instantly touch dry. Stress toys can be printed and re-packed within a few hours or passed through a short drying tunnel for immediate re-packing.

Setting up with Series 792 Series 792 is excellent for a wide range of rubber-like and flexible substrates including stress toys. 792 can only be used as a 2-component ink requiring 4:1 hardener and thinned with a fast thinner (up to 20% by weight). Series 792 gives a very high gloss print with extremely high opacity and coverage, but it does take more practice to use well as it is very slow to transfer and cure. Re-packing is approximately 8-12 hours or overnight in colder conditions.

Setting up with Series 660 Series 660 is excellent for a wide range of rubber-like and flexible substrates including stress toys. 660 can be used as a 1-component ink for stress toys or with hardener on other items (10:1) where greater print resistance is required. Series 660 must be thinned with a combination of special retarder and fast thinner to achieve a suitable consistency for pad printing. Add 5-10% special retarder until the ink begins to flow, then thin with fast thinner until spider-webbing disappears but print transfer is still good. 660 also has excellent colour and opacity with a semi-gloss finish. Stress toys can be re-packed within approximately >4 hours of printing.