

PAD PRINTING INKS TP 313

APPLICATION

For all kinds of thermoplastics, especially for ABS, polystyrene and its copolymers, rigid PVC, PMMA and polycarbonate. For sufficient adhesion on polyester, polyamide and other duroplastics pretreatment (corona or flame treatment) may be required.

PROPERTIES

TP 313 inks are very quick drying and weather resistant. They show good processing properties, high gloss and good resistance against benzines and alcohol especially when the ink is processed with hardener TP 219. Furthermore, TP 313 inks have an excellent abrasion resistance.

COLOUR SHADES

The colour shades of the TP 313 range show heavy metal free pigmentation and correspond to EN 71, part 3, safety of toys, migration of certain elements.

ADJUSTMENT FOR PAD PRINTING

TP 313 inks are adjusted to printing consistency with 10-30% thinner Additive A or thinner VD 60. For retardation use TPD.

For higher mechanical and chemical resistance or better adhesion TP 313 can also be processed as 2-component ink. Mixing ratio pad printing ink TP 313: hardener TP 219 is 10:1 parts by weight. The pot life of the mixed inks is approx. 8 hours. After this time adhesion and resistance values might be reduced, even if the ink still seems to be liquid and processable.

Abrasion resistance can be improved considerably by addition of additives to improve abrasion resistance.

DRYING

Pad printing inks TP 313 are air drying, i.e. they dry by evaporation of solvents contained in the ink.

At room temperature (20°C-25°C) drying time is approx. 30-60 seconds. Heat application and air circulation will reduce drying time. Depending on the substrate the inks are completely cured within a few hours.

Processed as 2-component system mechanical and chemical resistances are not achieved until the ink is fully cured (approx. 4-5 days).

CLEANING

For cleaning of stencils and tools (not pad) our thinner VD 40 is suitable.

PACKING

Pad printing inks TP 313 are only delivered in 1 liter cans.

SHELF LIFE

For information regarding shelf life please see tin label.

CLASSIFICATION

Read material safety data sheets prior to processing.

The material safety data sheets according to Regulation (EC) No 1907/2006 contain classification according to preparations directive (1999/45/EC) as well as instructions for precautions when processing, handling and storing as well as first aid. The information given in the material safety data sheet refers to processing as described in this product data sheet.

| orange TP 313/O50 green TP 313/G5 scarlet TP 313/R20 black TP 313/N5 red TP 313/R50 white TP 313/W | STANDARD SHADES | | | |
|--|-----------------------|-----------|----------------|--|
| citric yellow, highly opaque medium yellow TP 313/10-HD dark blue ultra marine medium yellow, highly opaque TP 313/11 ultra marine dark yellow TP 313/12 turquoise dark yellow TP 313/12 turquoise dark yellow, highly opaque TP 313/15 violet, highly opaque orange, highly opaque TP 313/15 violet, highly opaque orange, highly opaque TP 313/15 violet, highly opaque orange, highly opaque TP 313/15 HD light green, highly opaque orange, highly opaque TP 313/20 fir green light red ilght red, highly opaque TP 313/20 fir green red bright, highly opaque TP 313/21 light brown red bright, highly opaque TP 313/21 white carmine red TP 313/22 white carmine red, highly opaque TP 313/22-HD white, highly opaque pink TP 313/25 black light blue TP 313/30 black, highly opaque Other colour shades can be manufactured subject to our special production red TP 313/31 hand the production of the colour shades can be manufactured subject to our special production red TP 313/180-NT magenta TP 313/180-NT magenta TP 313/181-NT cyan TP 313/182 NT C-MIX 2000 BASE COLOURS PROCESS COLOURS ACCORDING TO EUROPE SCALE PROCESS COLOURS ACCORDING TO EUROPE SCALE Serimmose TP 313/180-NT magenta TP 313/181-NT cyan TP 313/182 NT C-MIX 2000 BASE COLOURS BRONZE INKS BRONZE INKS | nighly | ly opaque | e TP 313/30-HD | |
| medium yellow highly opaque TP 313/11 ultra marine medium yellow highly opaque TP 313/11-HD dark blue dark yellow TP 313/12-HD violet violet violet violet violet, highly opaque orange, highly opaque TP 313/15-HD light green ochre yellow TP 313/17-HD light green, highly opaque ilight red, highly opaque TP 313/20-HD brilliant green red bright TP 313/21 light brown red bright, highly opaque TP 313/21-HD dark brown carmine red TP 313/22-HD white, highly opaque TP 313/22-HD white, highly opaque TP 313/22-HD white, highly opaque pink TP 313/25-black light blue TP 313/30 black, highly opaque Diack, highly opaque Diack | | 7 -11 | TP 313/31 | |
| medium yellow, highly opaque dark yellow TP 313/11-HD dark blue dark yellow TP 313/12 turquoise dark yellow, highly opaque TP 313/12-HD violet orange TP 313/15 violet, highly opaque orange, highly opaque TP 313/15 light green ochre yellow TP 313/15-HD light green, highly opaque II pr 313/20 fir green brilliant green light red, highly opaque TP 313/20-HD brilliant green light red, highly opaque TP 313/21 light brown dark brown carmine red TP 313/22 white dark brown carmine red TP 313/22 white dark brown dark brow | е | | TP 313/32 | |
| dark yellow dark yellow, highly opaque dark yellow, highly opaque dark yellow, highly opaque orange TP 313/12-HD violet orange, highly opaque Ochre yellow Ochre yellow TP 313/15-HD light green, highly opaque Ochre yellow TP 313/20 TP 313/21 TP 313/21 TP 313/21 TP 313/22 TP 313/25 TP 313/25 TP 313/30 TP 313/30 TP 313/30 TP 313/30 TP 313/30 TP 313/180-NT TP 313/181-NT TP 313/182-NT C-MIX 2000 BASE COLOURS PROCESS COLOURS PROCESS COLOURS C-MIX 2000 BASE COLOURS PROCESS COLOURS PROCESS COLOURS TP 313/180-NT TP 313/181-NT TP 313/182-NT C-MIX 2000 TP 313/180-NT TP | | | TP 313/33 | |
| dark yellow, highly opaque TP 313/12-HD violet orange TP 313/15 violet, highly opaque orange, highly opaque TP 313/15 violet, highly opaque orange, highly opaque TP 313/17 light green, highly opaque light red TP 313/17 light green, highly opaque ilight red, highly opaque TP 313/20-HD brilliant green red bright TP 313/21 light brown red bright, highly opaque TP 313/21-HD dark brown carmine red TP 313/22-HD white, highly opaque TP 313/22-HD white, highly opaque pink TP 313/25 black ilight blue TP 313/30 black, highly opaque Other colour shades can be manufactured subject to our special production red TP 313/180-NT TP 313/180-N | turquoise | | TP 313/34 | |
| orange TP 313/15 violet, highly opaque orange, highly opaque TP 313/15-HD light green orange, highly opaque TP 313/17 light green, highly opaque light red TP 313/20 fir green light red, highly opaque TP 313/20 fir green orange dright TP 313/21 light brown red bright TP 313/21 light brown red bright, highly opaque TP 313/21 white carmine red TP 313/22 white carmine red, highly opaque TP 313/22 white carmine red, highly opaque TP 313/25 black light blue TP 313/30 black, highly opaque pink TP 313/30 black, highly opaque Other colour shades can be manufactured subject to our special production red PROCESS COLOURS ACCORDING TO EUROPE SCALE PROCESS COLOURS ACCORDING TO EUROPE SCALE Yellow TP 313/180-NT magenta TP 313/181-NT cyan TP 313/182 NT C-MIX 2000 BASE COLOURS Primrose TP 313/Y30 violet TP 313/V5 primrose TP 313/Y50 blue TP 313/B5 orange TP 313/R50 white TP 313/R50 white TP 313/N50 magenta TP 313/R50 white TP 313/N50 magenta TP 313/M50 varnish TP 313/N50 magenta TP 313/M50 varnish TP 313/N50 BRONZE INKS | violet | | TP 313/37 | |
| orange, highly opaque orhe yellow orhe yellow ight red ight red ight red ight red ight red, highly opaque red bright red | violet, highly opaque | | TP 313/37-HD | |
| ochre yellow light red | | | TP 313/40 | |
| ight red ight red ight red, highly opaque TP 313/20 für green ight red, highly opaque TP 313/20 brilliant green red bright TP 313/21 light brown red bright, highly opaque TP 313/21 light brown red bright, highly opaque TP 313/22 white carmine red TP 313/22 white white, highly opaque Doink TP 313/25 black ight blue TP 313/30 black, highly opaque Dother colour shades can be manufactured subject to our special production red PROCESS COLOURS ACCORDING TO EUROPE SCALE PROCESS COLOURS ACCORDING TO EUROPE SCALE TP 313/180-NT magenta TP 313/181-NT TP 313/181-NT TP 313/182 NT C-MIX 2000 BASE COLOURS C-MIX 2000 BASE COLOURS Drimrose TP 313/Y30 violet TP 313/V5 blue TP 313/V5 blue TP 313/V5 blue TP 313/V5 brange TP 313/V50 blue TP 313/V50 blue TP 313/V50 brange TP 313/C50 green TP 313/C50 green TP 313/C50 green TP 313/C50 green TP 313/V50 brange TP 313/R50 white TP 313/W50 magenta TP 313/R50 varnish TP 313/W50 magenta TP 313/M50 varnish TP 313/W50 magenta TP 313/M50 varnish TP 313/W50 TP 313/W50 magenta TP 313/M50 varnish TP 313/W50 TP | | | | |
| rich gold TP 313/20-HD brilliant green red bright TP 313/21 light brown red bright, highly opaque TP 313/21 light brown dark brown carmine red TP 313/22 white carmine red, highly opaque TP 313/22-HD white, highly opaque pink TP 313/25 black light blue TP 313/30 black, highly opaque Other colour shades can be manufactured subject to our special production red PROCESS COLOURS ACCORDING TO EUROPE SCALE Yellow TP 313/180-NT TP 313/181-NT try and TP 313/182 NT C-MIX 2000 BASE COLOURS Primrose TP 313/730 violet TP 313/75 black primrose TP 313/750 blue TP 313/75 black primrose TP 313/750 blue TP 313/75 bright TP 313/750 black TP 313/750 bright TP 313/750 black TP 313/750 bright TP 313/750 black TP 313/750 black TP 313/750 bright TP 313/750 black TP 313/750 bright TP 313/750 black TP 313/750 bright | | | TP 313/41 | |
| red bright TP 313/21 light brown red bright, highly opaque TP 313/21-HD dark brown carmine red TP 313/22 white the carmine red TP 313/22 white the carmine red, highly opaque TP 313/22-HD white, highly opaque black ight blue TP 313/25 black ight blue TP 313/30 black, highly opaque of the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour shades can be an advantable production results and the colour shades can be accommended to our special production results and the colour shades can be coloured to our special production results and the colour shades can be coloured to our special production results and the colour shades can be coloured to our special production results and can be coloured to our special production results and can be colo | | | TP 313/42 | |
| red bright, highly opaque TP 313/21-HD dark brown carmine red TP 313/22 white white, highly opaque TP 313/22 white, highly opaque pink TP 313/25 black light blue TP 313/30 black, highly opaque Other colour shades can be manufactured subject to our special production results and the production of the colour shades can be manufactured subject to our special production results and the production of the colour shades can be manufactured subject to our special production results and the colour shades can be manufactured subject to our special production results and the colour special production results are colour special production results and the colour special production results are colour special production results and the colour special production results are colour special producti | | | TP 313/50 | |
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| pink TP 313/25 black light blue TP 313/30 black, highly opaque Other colour shades can be manufactured subject to our special production re PROCESS COLOURS ACCORDING TO EUROPE SCALE yellow TP 313/180-NT magenta TP 313/181-NT cyan TP 313/182 NT C-MIX 2000 BASE COLOURS Primrose TP 313/Y30 violet TP 313/V8 golden yellow TP 313/Y50 blue TP 313/Y80 orange TP 313/Y50 blue TP 313/Y80 orange TP 313/Y50 blue TP 313/Y80 scarlet TP 313/R50 white TP 313/W8 magenta TP 313/M50 varnish TP 313/W8 magenta TP 313/M50 varnish TP 313/E8 | ly ona | oaque | TP 313/60-HD | |
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| PROCESS COLOURS ACCORDING TO EUROPE SCALE Tellow TP 313/180-NT TP 313/181-NT TP 313/182 NT C-MIX 2000 BASE COLOURS TP 313/750 blue TP 313/86 prange TP 313/750 green TP 313/86 prange TP 313/R20 black TP 313/N6 prange TP 313/R20 black TP 313/N6 prange TP 313/R50 white TP 313/N6 prange TP 313/M50 varnish TP 313/E8 | ly on: | naque | TP 313/65-HD | |
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| C-MIX 2000 BASE COLOURS Primrose TP 313/Y30 violet TP 313/V5 golden yellow TP 313/Y50 blue TP 313/B5 orange TP 313/O50 green TP 313/G5 scarlet TP 313/R20 black TP 313/N5 red TP 313/R50 white TP 313/W5 magenta TP 313/M50 varnish TP 313/E5 BRONZE INKS | | | | |
| ## Primrose TP 313/Y30 violet TP 313/V5 | | | | |
| golden yellow TP 313/Y50 blue TP 313/B5 orange TP 313/O50 green TP 313/G5 scarlet TP 313/R20 black TP 313/N5 red TP 313/R50 white TP 313/W magenta TP 313/M50 varnish TP 313/E5 | | | | |
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| scarlet TP 313/R20 black TP 313/N5 red TP 313/R50 white TP 313/W magenta TP 313/M50 varnish TP 313/E5 BRONZE INKS rich gold TP 313/75-AB | TP 313/G50 | | | |
| red TP 313/R50 white TP 313/W magenta TP 313/M50 varnish TP 313/ES BRONZE INKS rich gold TP 313/75-AB | TP 313/N50 | | | |
| magenta TP 313/M50 varnish TP 313/E5 BRONZE INKS rich gold TP 313/75-AB | TP 313/W50 | | | |
| rich gold TP 313/75-AB | TP 313/E50 | | ≣50 | |
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| pale gold TP 313/77-AB | | | | |
| copper TP 313/78-AB | | | | |
| silver TP 313/79-AB | | | | |

METAL GLOSS INKS

rich gold TP 313/75-MG
rich-pale gold TP 313/76-MG
pale gold TP 313/77-MG
copper TP 313/78-MG
silver TP 313/79-MG

Other shades can be manufactured subject to our special ink shade regulation

The statements in our product and safety data sheets are based on our present experiences, however they are no assurance of product properties and do not justify a contractual legal relationship. They serve to advise our business associates, but it is absolutely necessary to make your own printing tests under local conditions, with regard to the intended purpose prior to starting the job. - All former product data sheets are no longer valid. APRIL 2008 – VERSION No. 5