

TECHNICAL DATA SHEET

Pad Printing Ink Type TM/PU

Highest resistance pad printing ink for technical and decorative applications on plastics and metals. TM/PU is a highly opaque Two component glossy pad printing ink for industrial and graphic applications including plastics, metals, and coated surfaces. This ink has outstanding performance resistance to the following: **Chemical, Abrasion, Acids, Alkalis, Mechanical Wear, Oils, and Solvents.** Based on high chemical resistant resins, this ink is for industrial indoor and outdoor applications.

Characteristics

Two Component (adding hardener)
Glossy, Highly Opaque
Chemical, Abrasion, Alkalis, Oil, and Solvent Resistant
For interior and exterior applications – UV Light and Weather Resistant

Recommended printing room temperature 70-78 degrees F.
Recommended printing room humidity 30-50%

Drying & Curing

Chemical Resistances are developed in a range of 72 to 96 hours in relation to temperature and humidity. A forced heat drying method drastically reduces the drying time with a recommended temperature from 200 to 400 degrees F. Post oven curing of production golf balls dramatically reduces curing time.

Two Component Use

Hardener must be added to the ink in relation to weight. The hardener must be mixed thoroughly with the ink before adding the ink thinner. During printing the ink may be thinned to maintain an optimal viscosity.

Shelf Life

Non Metallic 2 Years, Metallic's 1 year, Hardeners 1 Year, Thinners and additives 2 years.

Note: Shelf life is for products in the original sealed container stored 60 to 80 degrees F.

Hardeners

TM-BH	Standard Hardener for most purposes.
TM-BHN	Most Abrasion and UV Light Resistant, and more flexible than TM-BH but slower drying.
4-1 Ink To Hardener Ratio	Pot Life: 8 hours Metallic's may be less

Thinners

Initially added 1 to 20% by weight depending on application 15% is Normal

TM-B	Fast Thinner For cooler room temperatures or faster machine cycle times.
TM-VD	Normal speed Thinner (Recommended)
TM-BGA	Slow Speed Thinner – For High room temperatures or cup slide applications

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Additives

TM-R	Ink Retarder	Slows Down drying time of ink only used when a slower thinner is not available. 1 to 3% by weight
TM-209 Ink weight	Adhesion Promoter	Increased ink adhesion to various substrates add 10% by weight
TM-PP	Substrate Wipe-On	Substrate Primer for ink adhesion
TM-ASP	Ink Anti Static Paste	Only used for static charge problems 1 to 2% by weight

Cleaning Tampomark's R1 Parts Cleaner is recommended to clean ink from printing accessories.

Standard Ink Colors See our [Standard Ink Color Chart](#) at www.tampomark.us

20 Standard Colors

HD01 Black, HD02 White, HD03 Light Yellow, HD04 Medium Yellow, HD05 Yellow Orange, HD06 Orange, HD07 Ochre Yellow, HD08 Light Red, HD09 Bright Red, HD10 Carmine Red, HD11 Dark Red, HD12 Magenta, HD13 Light Blue, HD14 Medium Blue, HD15 Ultra Blue, HD16 Turquoise, HD17 Grass Green, HD18 Signal Green, HD19 Chestnut Brown, HD20 Clear Bronze Binder.

13 Color Matching System Make your own custom color ink in house using recommended formulas.

MS01 Black, MS02 White, MS03 Light Yellow, MS04 Medium Yellow-Transparent, MS05 Dark Yellow, MS06 Orange, MS07 Red, MS08 Red-Transparent, MS-9 Magenta-Transparent, MS10 Violet-Transparent, MS11 Cobalt Blue, MS12 Blue-Transparent, MS13 Green-Transparent

4 Color Process Colors

4C50 Cyan, 4C60 Yellow, 4C70 Magenta, 4C80 Black

6 Standard Metallic Colors

G02 Light Gold, G03 Medium Gold, C04 Copper Gold, S00 Silver, S99 Coarse Silver, S01 Champaign Silver

Custom Colors

An unlimited number of custom colors are available including Metallic and other special effect pigments.

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Tampomark's Inks and additives conform to:

- Proposition 65 chemicals list (March 21, 2008)
- US C.O.N.E.G. Legislation and European Standard EN71, part 3 Safety of Toys (1989)
- Automotive, Medical, MIL-STD

Recommended Printing Substrates

Thermoplastics

ABS, Acetal with pre-treatment, Polyester, Acrylics, CAB, Cellulosic, Cellulose Acetate, Nylon, PET, Polyphenylene, Polyamides, Polycarbonate, Polyester, Polyetherimide, Polyolefin, Polystyrene, Coated Polyester, Polypropylene with Pre-Treatment, Polyethylene with Pre-Treatment, Polyamide, Sulfone, Rigid PVC, Tyvek, Vinyl, SAN

Metals

Most types of Metals, Aluminum, Raw Anodized and Brushed

Miscellaneous Substrates

Ceramic, Formica, Glass, Golf Balls, Wood, Leather, Melamine's, Paper, Porcelain, Wood, Cellophane, Formica, Lacquered, Coated surfaces, Plexiglas, Thermoplastic Polyester Resin, Urethane, Powder Coat, Surlyn, UV Coating, Viton

Precautionary Measures

Read Material Safety Data Sheet (MSDS) prior to processing.

The material safety data sheets according to OSHA contain hazardous ingredients, TLV levels, and instructions for precautions when processing, handling and storing as well as first aid. The statements in our leaflets have been made to the best of our knowledge and are given without any obligation. It is absolutely necessary to make your own printing tests under conditions, with regard to the intended purpose prior to starting the printing job. In case of any doubts please contact our technical specialists. Media Service Grulms GmbH cannot guarantee printing results nor assume liability for any problem that may arise. No warranty for results obtained, expressed, or implied can be assumed by Media Service Grulms GmbH. Rev.1 2008