



TECHNICAL DATA SHEET

240.000 SERIPROP

SAFETY DATA

Ink based on selected and top quality cellulosic resins. All 240.000 SERIPROP components are in compliance with the REACH regulation (CE) n. 1907/2006 of the European Parliament and of the Council concerning the registration, evaluation, authorization and restriction of chemical substances and related updates and summaries. 240.000 SERIPROP complies with the ISO EN 71/9 standard concerning the presence of hazardous solvents. 240.000 SERIPROP is exempt from the following substances subject to registration:

- persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative substances (vPvB) according to Annex XIII Reach;
- substances included in the list subject to authorization, defined in accordance with Article 59;
- substances that exceed EEC limits at the workplace;
- substances subject to restrictions on the manufacture, placing on the market and use of substances and preparations as defined in Annex XVII.

- SVHC substances (Substances of Very High Concern) listed in the CANDIDATE LIST of substances of very high concern for Authorization, published in accordance with Article 59 of the REACH Regulation. The precise choice of not having harmful and toxic components allows 240.000 SERIPROP to be used safely in the workplace, extending the intervals of legal visits.

The formulation of any Sample Tint for the reproduction of each color according to the Spectrophotometric method is provided free of charge to the customers.

For applications in the field of products for children, CE EN71, in which it is necessary to present the chemical analyzes of actual compliance with European and US regulations, is available a specific series 241 ECOPROP. Consider that the subject is regulated by specific analysis documents and official declarations that do not prescribe certification by providing only and correctly faith to the chemical analyzes of laboratories qualified to analyze and declare the effective composition of the ink. For the legal conditions for issuing declarations, consult Quasar srl laboratory.

CHARACTERISTICS AND ADHERENCE

240 SERIPROP has a matt aspect and is entirely homogeneous with an elevated covering quality. The particular mix of solvents, which gives the inks a very soft, slight odour, also maintains the ink fresh on the screen keeping the mesh open even when work is interrupted.

The base resins give the inks an exceptional elasticity and high scratch resistance. It adheres to many cellulose based substrates: sheets of acetate cellulose, cardboard, polystyrene paying attention to the choice of thinners, PETG, methacrylic compact discs, pre-varnished aluminium, extruded methacrylate, natural leather etc.

240 SERIPROP has been formulated especially for polythene and propylene, polionda, priplack®, varnished UV with minimum superficial tension of 39 DIN. Adherence on polythene supports is at its best if the substrate is treated with corona treatment, flaming, plasma or other treatments that lift the tension value above 39 DIN. If this treatment has expired and the superficial tension is low, (use a specific liquid test) it has been proved that 240 SERIPROP adheres to polythene substrates with corona or flaming treatment which has expired, 12 hours after drying. The material may be piled up without any problem immediately after drying whether at room temperature or after hot air curing, but the maximum resistance to scratching and cellotape is after 12 hours. Where unsure, test the material with a trial print to check ink adherence over all the surface, to avoid adherence in a single area. In cases of difficult adhesion it is recommended the addition of 10% of 291.59 Adhesion Promoter. The addition of 291.59 Adhesion Promoter improves the resistance of the ink to solvents and alkali: pot life of ink mixed with 291.59 is about 8 hours.

RESISTANCE

240 SERIPROP is manufactured with quality pigments that reach, in the range of the color chart, excellent values of the wool scale, as per UNI 5773-66 which establishes the criteria and the evaluation of the quality values of the pigments. 240 SERIPROP has a good external resistance of more than 1 year, always respecting the thickness values of the silk-screen matrix, and deposited thickness, must be higher than 20 microns.

240 SERIPROP does not resist rubbing with ethyl alcohol. For resistance to alcohol and some solvents, add 10% of 291.59 Adhesion Promoter to the ink. It is not resistant to green gasoline. Not suitable for high frequency welding. 240 SERIPROP resists humidity and salt spray quite well.

FOUR COLOUR PROCESS CMYK

240 SERIPROP range EUROPE Quadricromatico uses the Scala Europa according to ISO 2846. In the four-color printing it is very useful to enhance the thixotropic capacity of the ink by mixing it with the TIXOTROPIC AGENT 240.130 in the appropriate measure without losing intensity of the color tone. The dilution of the four-color ink must be done with extra slow diluent 290.22 and only rarely with retarders. The 290.22 diluent gives the ink the properties of perfect passage through the meshes of the fabric with an excellent precision of the point, especially negative. During the four-color printing, it is advisable to re-integrate the ink on the frame with other slightly diluted ink at pre-established times.

In the Color Process selection always use the UCR or better GCR option and stick to the wire diameter / diameter ratio values. For information on the correction of densitometric selection curves in order to obtain the exact reproduction of the original and reduce the effects of Tint Error, Trapping, Print Contrast, etc., it is advisable you to consult Trattato di Serigrafia (Dealing with Screen printing) by Franco Lo Giudice.

PAD PRINTING

240 SERIPROP can also be printed in pad printing, having also been formulated with specific correspondence to this technology. The special formulation satisfies all the applications of pad printing and is able to offer inks that adapt to all the supports on the market even with specific treatments or additives for the most difficult cases. For the Tampographic application it is sufficient to add to the 240 SERIPROP the specific pad printing Diluent 290.18 in percentage from 5% to 10%

THINNERS

It is always better not to exaggerate with thinners so as to avoid ink precision loss. It is always a good idea to shake the inks before use, not manually but with a motorized rotor for about 4/5 minutes at not less than 1.000 turns a minute. Thinning should then be done after this process. Standard thinners suggested are: Normal 290.26 and Slow 290.23. A vast range of thinners, however, is available for every type of application.

THINNERS	NOXIOUSNESS	EVAPORATION	TECHNICAL FEATURES
RAPIDO 290.01 (Fast 290.01)	Non-toxic. Soft odour	Fast	Moderate power of etching substrate. Adapt for background prints and large areas.
NORMALE 290.13 (Normal 290.13)	Noxious strong odour	Medium	Good power of etching substrate, suitable for hard-to-anchor supports. Excellent in four-color printing and definition
NORMALE 290.15 (Normal 290.15)	Non-toxic Soft odour	Medium	Moderate power of etching substrate. Suitable for thermoplastic substrates. For normal printing.
NORMALE 290.16 (Normal 290.16)	Irritant soft odour	Medium fast	Reduces substantially the power of etching substrates. Makes inks matt-like. Avoid any form of stickiness. Suggested for embossing.
Tampografico 290.18 (Pad Printing 290.18)	Irritant soft odour	medium fast	Added from 5% to 10% allows perfect detachment of the ink in the use of the Pad
LENTO 290.22 (Very Slow 290.22)	non-toxic, soft smell	very slow	Moderate power of etching substrate. Specific in the four-color printing and definition, leaves the ink always fresh on the frame without affecting the drying time. Recommended dose 5%
LENTO 290.23 (Slow 290.23)	Noxious soft odour	Slow	Good power of etching substrate. Adapt for thermoplastic substrates normal printing. Keeps inks fresh on screen.
LENTO 290.26	irritating	average	discreet power of etching, improves adhesion on

(Slow 290.26)	soft smell	slow	polythene and polypropylene. Specific thinner for 240 SERIPROP
Aggressivo 290.27 (Aggressive 290.27)	Noxious no odour	Slow	Not suitable for Toys sector. Excellent in association with 290.15. Improves ink adhesion on difficult media. Pay attention to the discovery of plasticizers. Add to the ink in max 3% amount
Ritardante 290.32 (Retarder 290.32)	Non-toxic No odour	not evaporate	No power of etching substrate, remains in the ink for a long time even after drying. Tends to delay evaporation of other solvents present. Not suitable for printing on highly plasticized and soft substrates, must be kept for extreme cases and in a maximum percentage of 3%. CAUTION when a retarder is present in the ink its drying becomes much slower and high pile of plasticized materials tend to stick together.

PRINTING ADVICE

Always use screens which are well stretched with a slight inclination of the mesh to avoid Closing Effect. Adopt all the techniques connected to reducing the RZ factor. In the case of high definition mesh use flood bar with sharp blades and polyurethane rubbers at high shore. Better still if supported. In the case of full and uniform underbases always take into consideration the fact that the spreading out of the ink works better with fast printing and high pressure made by the squeegee and not the contrary. A large amount of solvent evaporates during printing and so the amount lost must be reintegrated. It would also be advisable to add some more, slightly thinner ink to the screen at established intervals. It is better to keep printing speed stable, even if slow not to vary speeds. This stabilises as much as possible the thixotropy in the inks. When washing the screen, this must be done globally and not in sections, at least during high definition printing.

Ink yield exceeds 40 mq with 120.34 PW mesh, with an average emulsion thickness: RZ Factor 10/15 the stencil must be resistant to solvents. The best mesh range from 77.55 PW for full and uniform underbases to 150.31 PW for fine line halftones four colour process printing.

DRYING (curing)

240 SERIPROP diluted normally and without using retarding agents, dries in 20 minutes with a manual dryer at a room temperature between 17° and 23°C. In a hot air curing unit and with a temperature set at not more than 50°C, the drying takes 15 seconds each. When using reasonably thick materials, for example with a diameter thread of more than 50 micron, and thicker ink deposit, the drying procedure takes longer. When collecting dry surfaces, carefully check that the support, pressed face-to-face, does not give rise to any tackiness.

PRODUCT LIFESPAN

If kept in its original confection, 240 SERIPROP will last a long time. Can be kept in closed tins in rooms with a maximum thermal temperature of between 5° > 40°C, it will last 2 years without any particular damage. If it is kept for longer and once the product has been opened, it would be advisable to dilute the ink using a blade (or blade machine) so that the evaporated thinners are reintegrated.

GUARANTY

QUASAR produces inks and screenprinting products with competence and experience and a quality control system with regards to raw materials used during the various elaboration processes. Product components undergo a series of controls and continuous check and the results are archived along with the necessary samples of each separate product. This is of course in the interests not only of the manufacturer but also the customer.

The use and application of QUASAR srl products is so vast to escape every type of control, so the only guarantee that is guaranteed is the replacement of the product if it is proved to be defective or erroneous production.

The printer is therefore always responsible for choosing the type of ink used, and must perform appropriate preventive printing tests in order to verify the suitability for specific requests.

However, the major number of printing problems arise from bad application or a bad product choice. The QUASAR laboratory and its technicians are available to give advice, make necessary corrections to, or personalise, their screen printing products. We do therefore always hope for a tight collaboration with our customers so that we can always improve in the screen printing environment. The guarantees of quality and

production are recognized by QUASAR srl exclusively for their inks packed in the original containers of kg.1 and 5 and in all the other packages of the house sealed at the origin.

COLOURS GUIDE 240.00 SERIPROP

100 TRANSPARENT BASE	372 SOLFERINO	800 BLACK
130 THIXOTROPIC AGENT	375 VIOLET	271 EUROPE YELLOW
200 COLD YELLOW	400 BLUE	371 EUROPE MAGENTA
241 WARM YELLOW	421 SEA BLUE	471 EUROPE CYAN
300 ORANGE	431 NAVY BLUE	871 EUROPE BLACK
311 RED YELLOWY	541 FAST GREEN	
3321 BRIGHT RED	700 WHITE	

ANY PARTIAL REPRODUCTION IS FORBIDDEN