Screen

Product Data Sheet

VYNAGLAZE APR 47-00 SERIES SCREEN INKS

Vynaglaze APR 47-00 series screen inks have been formulated to give a high gloss finish on a wide range of PVC and other plastic materials. Exceptional flexibility, weather resistance, adhesion and a high degree of alcohol and petrol resistance makes the inks ideal for the production of self-adhesive window stickers, labels, vehicle marking and in-store and forecourt advertising, including acrylic signs.
Vynaglaze APR inks are suitable for all types of printing equipment. The inks are complemented by a carefully selected range of thinners and retarders to give optimum drying properties and press stability.

ADHESION: Specially selected synthetic resins ensure excellent adhesion to a wide range of PVC and other plastic materials. These include flexible, self-adhesive and rigid PVCs, acrylic sheet, polycarbonate and some treated polyesters. However, it is strongly recommended that adhesion to all substrates be tested before use.

FLEXIBILITY: Vynaglaze APR inks are extremely flexible and are suitable for the most stringent demands of multi-coloured work, both single and double-sided, where several layers of ink are overprinted.

GLOSS: Vynaglaze APR inks combine high gloss with fast jet drying, thus minimising the danger of blocking, even with print-to-print contact.

COLOUR RANGE: The Vynaglaze APR colour range consists of 16 standard opaque shades which are listed in the table overleaf and shown in the Sun Chemical Screen colour card. Also shown are the 9 bright, lead free, Sunmatch mono-pigmented mixing shades which when used with black, white and extender base can be readily mixed to produce almost any colour. See table overleaf for colour range.

PANTONE®: Validated formulations for all the colours in the Pantone® colour guide are available in either formulation book or computer program format. Please contact your local branch or sales representative for a copy.

SUBSTRATES: Vynaglaze APR inks are suitable for a wide range of rigid and flexible grades of PVC. Some flexible PVCs may contain large proportions of plasticiser which often migrate to the surface and impair ink adhesion. Other grades are calendered for extra gloss and surface smoothness and the lubricants used in this process may also reduce adhesion. For this reason it is always advisable to assess adhesion before starting a print run by making a test print on the actual batch of plastic to be used.
Vynaglaze APR inks can also be used on acrylic sheet, polycarbonate and treated polyester. Any surface adhesive used to hold protective papers in place should be removed according to the manufacturer's recommendations. When printing on polycarbonate the use of special thinner or retarder is required to prevent the possibility of crazing.

PRINTING MATERIALS: High quality stencil materials such as Suncoat, will enhance the print quality normally expected from using Vynaglaze 47-00 series screen inks.
Print quality is dependent on the stencil and detailed instructions for all Suncoat products are available in the form of Product Data Sheets from your local Sun chemical Screen branch.
Specialist advice is also available.
Fine synthetic mesh such as Sefar should be used. A mesh count between 90-120 threads/cm will facilitate correct ink deposit, drying, flexibility and adhesion.

DRYING: Vynaglaze APR inks dry well through normal jet dryers and are also suitable for rack drying. Because the evaporation rate is decreased by additions of retarder, adequate drying should be ensured to maintain the performance of Vynaglaze APR.

INK ADJUSTMENT: Versatility is achieved by suitable thinning of Vynaglaze APR inks. Additions of up to 40% of Slow Thinner TS16 should be made for printing at the highest speeds, and 15-30% of Retarder TS17 for semi-automatic or hand bench work. For cylinder press printing, reduction to low viscosity is recommended ensuring optimum print performance.
For the most demanding conditions, i.e. hot printshops etc., where optimum screen stability is required, Vynaglaze Slow Retarder TS11 should be used. These thinners may be used together in any proportion for specific printing and drying requirements.
When printing on polycarbonate, Thinner TS23 or Special Retarder TS15 should be used.

WASHING UP: Suncoat General Purpose Screenwash YC26-054 is recommended for washing up on press. A comprehensive range of Suncoat screen cleaning and recovery products is available.

COVERAGE: Mileage is very dependant on printing conditions such as mesh count, thinning, stencil, etc. Vynaglaze APR inks are supplied at high viscosity, allowing a greater degree of thinning than many competitive products. As a guide up to 50m^2/kg may be expected from Vynaglaze APR inks.

DURABILITY: Standard Vynaglaze APR inks have been tested in accordance with BS4781 : 1990: 'Specification for Self Adhesive Plastic Labels for Permanent Use' and exceed the requirements for colour fastness and performance of legend. All pigments have been selected to have a rating of 7-8 on the Blue Wool Scale. In addition, accelerated weathering tests conducted in accordance with BS3900 Part F3 indicate an expected outdoor life of up to five years for full strength colours.
An overprint varnish is not required or recommended.
If extended outdoor life is required, a special range of Vynaglaze XL colours are available, accelerated weathering tests in accordance with BS3900 Part F3 indicate an expected outdoor life of up to 7 years for these colours at full strength.
Vynaglaze Extra process inks are suitable for outdoor use. Accelerated weathering tests in accordance with BS3900 Part F3 indicate an expected life of up to three years. Even longer life may be expected on vehicle markings.
Accelerated weathering tests simulate exposure in a middle European climate. It is essential to note that many arbitrary factors will affect the outdoor durability of all inks including tint strengths, proportion of white, degree of reduction, climate and position etc. Further advice and guidance on the suitability of inks for prolonged outdoor use can be obtained from your local Sun Chemical Screen branch.

FORMING: Vynaglaze APR prints are suitable for vacuum or drape moulding. The ink film softens under heat and stretches with the plastic. On cooling to room temperature, the inks regain their initial hardness. Because of their thermoplastic nature, these inks should not be used for plug or die-assisted moulding, where the tool is liable to contact the ink film. Care should also be taken in vacuum or drape moulding if the ink film is to come into contact with the mould.

STORAGE : Vynaglaze APR inks should be stored in sealed metal containers at temperatures between
5 and 30ºC. Under these conditions standard products, excluding metallic shades should remain useable for a period of 2 years.

SAFETY AND HANDLING: Before handling these products it is important to refer to the relevant Material Data Sheets (MSDS) which will have been provided by your local branch or distributor.

Vynaglaze Inks	PD 12.5.016		
TS16	PD 12.5.119	TS15	PD 12.5.117
TS17	PD 12.5.120	TS23	PD 12.5.129
TS11	PD 12.5.121		

Sun Chemical Screen strongly recommends the use of appropriate protective clothing such as gloves and goggles, when handling these products

CHILDRENS TOYS AND FOOD CONTACT: Sun Chemical Screen cannot guarantee the suitability of any of its products for use on printed items to be used by children (EN71), or for direct/ indirect food contact applications. Whilst Vynaglaze APR inks are formulated to be compliant with EN71, batches are not routinely tested.

For further information regarding these issues please refer to the appropriate customer information sheets available from your local Sun Chemical Screen branch.

VYNAGLAZE APR SUNMATCH BLENDING RANGE			
Primrose	47-Y30	Golden Yellow	47-Y50
Orange	47-050	Scarlet	47-R20
Red	47-R50	Magenta	47-M50
Violet	47-V50	Blue	47-B50
Green	47-G50	Black	47-N50
White	47-W50	Extender Base	47-E50

STANDARD COLOUR RANGE			
Yellow	47-Y31	Mid Yellow	47-Y41
Golden Yellow	47-Y51	Orange	47-O51
Warm Red	47-R11	Scarlet	47-R21
Red	47-R50	Rubine Red	47-M11
Magenta	47-M51	Rhodamine Red	47-M61
Purple	47-M91	Violet	47-V31
Reflex Blue	47-B31	Blue	47-B51
Process Blue	47-B61		
Green	47-G51		

OTHER STANDARD PRODUCTS			
Non-Arcing Black	47-76	Obliterating Grey	47-84
Silver	47-88	Opaque Backing White	47-837
Gold Medium	47-94	O/Print Varnish	47-95
Magnet Attracted (Ferrous)	47-MAG70		

XL COLOURS			
XL Primrose	47-Y301	XL Golden	47-Y501
XL Red	47-R501	XL Scarlet	47-R201
PROCESS INKS			
Process Yellow	47-0014	Process Black	47-0077
Process Magenta	47-0042	Process Base	47-E50
Process Cyan	47-0053		

THINNERS AND RETARDERS			
Thinner	TS16	Special Retarder	TS15*
Retarder	TS17	Thinner	TS23*
Slow Retarder	TS11		
* For use on polycarbonate substrates			

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