

## Product: Multigrip

### Series: C70™

**DESCRIPTION:** C70 Multigrip is a low-odor, fast-drying, multi-purpose, high-gloss ink with excellent outdoor durability and adhesion to a wide variety of paper and plastic substrates.

**SUBSTRATES AND APPLICATIONS:** C70 Multigrip may be screen printed onto pressure-sensitive vinyl, rigid vinyl, styrene, polycarbonate, surface-treated polyester, acrylic, most coated paper/board and some fiberglass surfaces. If ST-355 Adhesion Promoter is added, C70 Multigrip may also be printed on fluted polypropylene sheet such as Coroplast™, Hycor™, Cor-X™ or other, similar substrates. C70 Multigrip is recommended for printing P.O.P. displays, vacuum-formed products, bookcovers, membrane faceplates, advertising specialties, novelties and many other display and packaging applications.

**NOTE:** On fluted polypropylene C70 Multigrip loses abrasion resistance and adhesion when exposed to water. After drying off, these properties are restored. Do not use C70 on fluted polypropylene when wet abrasion-resistance and adhesion is required, such as for rain-wet exterior signs, which may be abraded during handling.

**NOTE:** Although multiple-layers of C70 Multigrip may be successfully superimposed, flexibility will gradually decrease as total ink deposit increases. If exceptional flexibility is required, a more flexible ink, such as C99 Gloss Vinyl or C37 Flexiform, may be more suitable.

Adhesion may be adversely affected by the inherent properties of certain substrates, sometimes a considerable period after printing. For example, plasticizer can migrate onto the surface of self-cling vinyl; calendared vinyl may be manufactured with lubricants to enhance surface slip; higher-gauge plastics may be contaminated by adhesive left after removal of their protective sheets.

**NOTE:** Pretest all substrates prior to use in production.

**DRYING:** C70 Multigrip is fast drying with excellent screen stability, and is therefore especially suitable for use on high-speed screen printing equipment, such as cylinder presses or reel-to-reel label presses.

Single layer prints of C70 Multigrip can dry in as little as 10-15 seconds at 140°F (60°C) through a jet dryer. As with all solvent-based inks, subsequent ink layers may require slightly longer drying time.

**PROCESS COLORS:** All process colors match the SWOP standards. Color density may be adjusted by adding C70-S139 Process Base.

**COVERAGE:** Using a 255/inch (100/cm) mesh, one gallon of C70 Multigrip will cover approximately 1,500 square feet.

**SCREEN MESH:** Typically 255-305/inch (100-120/cm) mesh. Finer meshes may be used for 4 Color Process printing. **Sun Chemical has the mesh best suited for your particular printing requirements. Contact your local Sun representative for details.**

**STENCIL:** Direct photo emulsion, capillary film or other solvent resistant stencil.

**SQUEEGEE:** Medium to hard durometer urethane squeegee. **Sun Chemical has the best squeegee for your particular application. Contact your local Sun representative for recommendations.**

#### MODIFICATION:

**Viscosity Reduction:** For best results, C70 Multigrip may be reduced with approximately 10-20% by weight of ST-212 Reducer. For exceptionally fine detail printing, or under adverse ambient conditions, either ST-303 Retarder or GEL-100 Gelled Retarder may be substituted for all or part of the reducer. The restricted flow of GEL-100 allows better print definition, particularly for reverse detail or 4-color process printing.

**NOTE:** The use of ST-303 Retarder or GEL-100 Gelled Retarder may decrease drying speed; ensure that drying is adequate before commencing a full production run.

**Gloss Reduction:** Up to 20% by weight of Matte Additive MAT-190 may be used to reduce gloss. A 10% addition of MAT-190 allows a satin finish, whereas a 20% addition allows a less reflective, more matte finish.

**NOTE:** As with all inks, decreasing gloss may render prints more susceptible to slight surface scuffing.

**Adhesion Promoter:** Adhesion of C70 Multigrip to fluted polypropylene sheet may be achieved by the addition of 1% by weight of ST-355 Adhesion Promoter. After addition, ink will only be useable for 24-48 hours.

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**WASH-UP:** C70 Multigrip may be cleaned from screens and processing equipment with any suitable screen wash, such as VL Wash. Sun Chemical has a variety of wash-ups including ECO friendly screen washes available for your particular needs. Contact us for *all* of your pre and post-press chemical requirements.

**HEALTH AND SAFETY:** As with all inks, gloves and safety goggles should be used when handling this product. For more complete information, refer to the relevant **Material Safety Data Sheet**.

**OVERPRINTING:** For most applications, C70-E50 Mixing Clear may be used to overprint C70 Multigrip colors. For maximum exterior durability an alternative product, OPC-190 Overprint Clear, is recommended. OPC-190 is specially formulated for use only as an overprint clear, and is slightly slower drying than C70 Multigrip products. If required, OPC-190 may be reduced with 5-15% by weight of ST-280 Overprint Clear Reducer.

**NOTE:** Pretest OPC-190 prior to use in production.

<b>SunMatch™ Blending Colors:</b>		<b>Process Colors:</b>	
C70-Y30	Primrose	C70-S131	Process Yellow
C70-Y50	Golden Yellow	C70-S135	Process Cyan
C70-O50	Orange	C70-S139	Process Base
C70-R20	Scarlet	C70-S140	Process Magenta
C70-R50	Red	C70-S171	Process Black
C70-M50	Magenta	<b>Modifiers:</b>	
C70-V50	Violet	MAT-190	Matte Additive
C70-B50	Blue	GEL-100	Gelled Retarder
C70-G50	Green	ST-280	Overprint Clear Reducer
C70-N50	Blending Black	ST-212	Reducer
C70-W50	Blending White	ST-303	Retarder
C70-E50	Mixing Clear	ST-355	Adhesion Promoter
<b>Standard Products:</b>		In accordance with information received from suppliers, the full C70 series is formulated without heavy metals and complies with: 16 CFR, Part 1303; ANSI Z66.1-1964; ASTM F 963; CONEG packaging regulations; EC Packaging Waste Directive EC/94/62; EN71, section 3; RoHS 2002/95/EC; WEEE 2002/96/EC; E2003/11/EC.	
C70-N501	Opaque Black		
C70-N502	Special Hi-Gloss Opaque Black		
C70-W501	Opaque White		
OPC-190	Overprint Clear		

All information on this data sheet is based on Sun Chemical laboratory tests and experience in print shops. Procedures and directions for use of Sun Chemical products (including printing and after-treatment) must be considered as recommendations only, with no warranties expressed or implied. The user of the products described herein is solely responsible for determining suitability of any Sun Chemical product for the particular application. Sun Chemical recommends that all products be pre-tested prior to full-scale production use. This data sheet supersedes all previous publications. Nov. 2008