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MATERIALS FOR DIGITAL COMPOSITING

DigiComp is Rosco's trade name for fabric, paint and tape precisely crafted to allow seamless compositing for film, video and digital use. In the modern compositing or matting process, images are overlaid on a surface for acceptance by a film or video camera. The success of the composited image depends directly on the luminance or brightness as well as the chroma or colour purity of the matte background. That's why backgrounds of DigiComp materials are so useful for film or television professionals.

DigiComp fabrics are 100% cotton materials impregnated with blue or green colour precisely matched to the DigiComp paints and tape. The paints are carefully developed pigments in a flexible vinyl acrylic binder for adhesion to a wide variety of substrates. The DigiComp tapes are non-reflective gaffers tapes which will not leave a sticky residue when removed.

Products in the range

DIGICOMP® PAINT

DigiComp® Blue
No. 57050128   3.79 Litres
No. 57050640   18.95 Litres

DigiComp® Green
No. 57070128   3.79 Litres
No. 57070640   18.95 Litres

### CHROMA FLOOR NEW!

Rosco's new Chroma Floor solves the long-standing problem of repainting your studio floor for every shoot. Chroma Key Blue on one side and Chroma Key Green on the other make Chroma Floor an ideal addition to any studio. Precise colour matching with Rosco Chroma Key paints allows for seamless compositing.

Manufactured of lightweight portable vinyl, the floor is easy to install, easy to clean and easy to maintain. Chroma Floor is also great for location shots.

Width: 1.6 m
Length: 40 m
Thickness: 1.3 mm
Weight: 113.40kgs per roll
Colours:
Blue/Green Reversible

No. 300 097 206 301
Blue/Green Chroma Floor
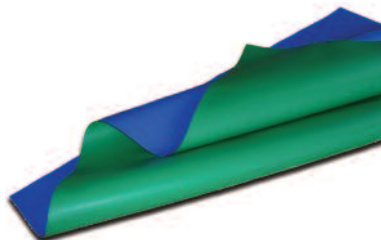
DIGICOMP® CABLE NEW!

Rosco's precisely crafted DigiComp line of aircraft cable allows seamless compositing for flying scenery and actors in front of compositing screens created using DigiComp paint and fabric, freeing up hours of post-production time spent on removing black rigging cables.

The steel cable is coated with a flexible PVC vinyl that moves easily through any commonly used rigging equipment.

Product Specifications
2.4 mm DigiComp cable
1.6 mm 7x7, coated diameter 2.4 mm
217 kg rating, 152 m spool

No. 850 57075 0938   DigiComp Green Cable
No. 850 57055 0938   DigiComp Blue Cable

4.8 mm DigiComp cable
3.2 mm 7x19, coated diameter 4.8 mm
917 kg rating, 52 m spool

No. 850 57075 1875   DigiComp Green Cable
No. 850 57055 1875   DigiComp Blue Cable

6.4 mm DigiComp® cable
4.8 mm 7x19, coated diameter 6.4 mm
1905 kg rating, 52 m spool

No. 850 57055 2500   DigiComp Green Cable
No. 850 57075 2500   DigiComp Blue Cable

ULTIMATTE® VIDEO PAINT

Rosco Ultimatte Paints are the approved Ultimatte Paint System. These paints were designed in conjunction with the Ultimatte technical staff to meet the requirements of their keying effects systems. Super Blue is a purer blue designed for use in film production. Vinyl acrylic paints can be used on nearly any surface. Available in 3.79 Litres

No. 57201   Ultimatte Blue
No. 57211   Ultimatte Green
No. 57221   Ultimatte Super Blue

Video levels when 89.9% white is at 100.

	Red	Green	Blue
Rosco Ultimatte® Blue	22	40	82
Rosco Ultimatte® Green	29	84	36
Rosco Ultimatte® Super Blue	7	18	72

These values were measured with an Ikegami EC-35 camera with Plumbicon tubes. The iris was set so that an 89.9% reflective chip on a Porta Pattern 11 step chip chart was at 100IRE units. The gamma was set to 0.45 and the knee circuit was turned off. Different cameras may yield different levels even under the same conditions.

CHROMA KEY™ VIDEO PAINT

Rosco Chroma Key Paints have been specifically formulated to provide high luminance values and colour saturation for keying effects. The acrylic colours provide high build, one-coat coverage for use on nearly any surface.

Available in: 3.79Litres and 18.89Litres

Colour	Luminance	Vectroscope Phase Angle
Chroma Key™ Blue	52	342
Chroma Key™ Green	57	242

No. 57101   3.79L   Chroma Key Blue Paint
No. 5710105   18.95L   Chroma Key Blue Paint
No. 57111   3.79L   Chroma Key Green Paint
No. 5711105   18.95L   Chroma Key Green Paint
No. 2420004   Chroma Key Blue Material
No. 2420005   Chroma Key Green Material
No. 2420006   Chroma Key Tape Blue 50mm x 50m
No. 2420007   Chroma Key Tape Green 50mm x 50m
No. 300 09720 6301   Chroma Key Floor Blue/Green

BUTTERFLIES AND CYCLORAMAS

With its extensive textile facilities and impressive turnaround times, Rosco is perfectly poised to create butterflies and cycs in either Chroma Key Cloth or DigiComp Fabric for your Blue/Green production. The use of these textiles ensures that there will be a seamless blend with the rest of the products in our range, maximising the efficiency of the compositing process and keeping post production costs in check.

Available in sizes to fit standard grip frames, or any custom size required.

Single Net - Black
Double Net - Black
Single Net - White
Double Net - White
Black Solid
White Solid
White Sheet
China Silk - White
China Silk - Black
Artificial Silk - White
Artificial Silk - Black
Artificial Silk- White
Artificial 1/4 Silk - Black
Hi-Lite
DigiComp Blue
DigiComp Green

Gold Dayflector
Soft Frost
Grid Cloth (Full/Half/Quarter)
Silent Grid Cloth (Full/Half/Quarter)
Griffolyn B & W - T55
Griffolyn B & W - T85
Ultrabounce
Silver Lame
Gold Lame
S/G Checkerboard
Silver Dayflector
Muslin (Bleached)
Muslin (Unbleached)
Chroma Key Blue
Chroma Key Green

DigiComp® Fabric

Such is the composition of the DigiComp range that you can use the DigiComp Fabric to cover windows, doorways and odd-shaped scenery and know that the colour will blend seamlessly with other DigiComp products. This in turn will give you confidence that the overlaid image will key consistently across all parts of the set and ensure that you'll never see the seams.

DigiComp® Cyclorama

DigiComp® Tape

Rosco has developed the DigiComp Blue/Green system for just about any situation but you will inevitably need to join fabric to paint or cable to fabric and DigiComp Tape is the perfect tool. With its non-reflective surface and specially formulated colouring, DigiComp Tape ensures that none of the integrity of your keying surface is lost.

DigiComp® Cable

When you need to fly props, scenery or even the talent, rather than rotoscoping the cables out post-production, you can save time and, therefore, money by using Rosco's DigiComp Cable.

DigComp® Paint

With its high luminance and proper colour saturation, Rosco's DigiComp paint is your quickest route to a strong keying surface. One coat will provide a smooth and even finish which will grab your images and guarantee a flawless composite result.

When you need the flexibility of moving your Blue/green set from location to location or studio to studio, a RoscoTex Cyclorama could be the answer. Available to order in any size and utilizing the DigiComp Fabric a Rosco Cyc will ensure accurate compositing – no matter where your shoot takes place.

Digicomp® Butterflies

If you never know where you'll be setting up your next compositing shoot, then a Rosco Butterfly in DigiComp Blue and/or Green is the perfect travelling companion. Manufactured to your preferred sizing and finishing specification, your DigiComp Butterfly can easily be shipped, assembled, dismantled and packed away….until the next time.

Chroma Floor

How perfect! You no longer have to repaint the studio floor every time you have a new compositing shoot to accommodate. Instead, simply roll out the Blue/Green Chroma Floor, specifically formulated to merge perfectly into Chroma Key Paint, and you're ready to begin.
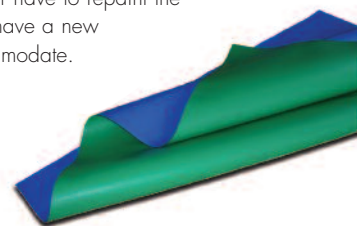
Chroma Key™ Paint

Cover walls, props, scenery and floors with Chroma Key Paint and you'll create a matte and consistent base colour which will ensure that your keying process goes without a hitch and that the final result is realistic and believable.

Ultimatte® Paint

The only paint approved by the Ultimatte technical team and formulated specifically to work with the demands of their compositing system, Rosco's Ultimatte Paint generates a truly superior keying surface fit for even the most demanding film production professionals.

USING CALCOLOR™ FOR BLUE/GREEN SCREENS

Rosco's CalColor™ is the ideal lighting filter for your Blue/Green shoot. Specifically formulated to be as pure blue or green as possible, CalColor™ filter will smooth out any inconsistencies of colour on the set and can reduce the amount of lights needed to achieve a high enough Blue/Green light level. CalColor™ can also correct the halo issued from reflected Blue/Green light hitting the back of the subject. All in all Rosco's CalColor™ range of filter makes your Blue/Green production as efficient and as cost effective as possible and is readily available from your Rosco stockist.

Available in: 50cm x 61cm Sheets and 7.62m x 1.22m Rolls.

GREEN/BLUE SCREEN LIGHTING THEORY:

(Theory applies to both green & blue. For simplicity sake, green will be used in the example below)

White Light (Red, Green, Blue wavelength mixture) hits green screen. Screen reflects back Green energy. Camera "sees" green energy, transmits Green info to compositing hardware/software. Compositing equipment "sees" Green and replaces that Green energy with other background imaging.

THE REALITY:

There is excess Blue and Red interference reflecting off the green screen. So, in order to get the Green level of the Green, and the Blue & Red ratio up to an appropriate level, more light must be added.

THE SOLUTION:

Rosco CalColor™ was developed to be pure colour for camera. So, CalColor™ Green is pure green to the camera and will enhance any green screen it washes. Adding CalColor™ 30 Green to the lights washing the green screen removes all the Red & Blue energy at the source, so there is no excess Blue & Red energy reflecting off the screen. Therefore, less light can be used to light the green screen. CalColor™ 60 Green can be used if more powerful fixtures are being used to light a green screen. CalColor™ can be made into Fluorescent Sleeves for use on Fluorescent fixtures such as KinoFlos or even inexpensive industrial Fluorescent fixtures bought at the local hardware store. CalColor™ 30 Blue can be used to enhance Blue screen. See diagram below.

COMPOSITING SETUP
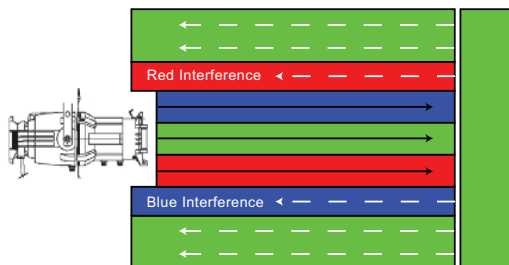
Note: the small amount of red and blue energy returning from the green screen.
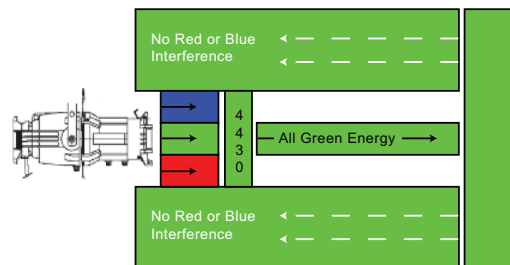
By applying CalColor #4430, the red and blue are absorbed at thesource, so there is not red and blue energy coming back from the screen – only green.

In a study conducted by Tom Denove at UCLA Film School, it was determined that by using CalColor™ 30 Green on the lights washing a Rosco Digicomp™ Green piece of fabric - 2 stops less light was needed to achieve the appropriate amount of Green energy needed for the compositing equipment. This was compared to lighting a Chroma Key Green piece of fabric with Tungsten lighting. The Digicomp™ Green is a more pure Green than Chroma Key Green which has more Blue in it and reflects more Blue interference back to camera. Adding CalColor™ 30 Green to the Tungsten light would have also helped eliminate that Blue interference here because there would be no blue energy to reflect blue interference.

Using less light on your Green/Blue screen has its advantages:

1. Less light = fewer lighting fixtures to rent/buy, less power consumption, less cable to run, fewer dimmers to rent/buy, less heat generated.

2. Less light reflecting off the screen also means less "halo" issue caused by the reflected Green/Blue light hitting the back of the subject in front of the screen.

If the halo persists, CalColor™ can help correct that too. Simply use the complimentary CalColor™ on your back lights to balance out the Green/Blue spill from the screen: CalColor™ 30 Magenta for Green screen and CalColor™ 30 Yellow for Blue screen.

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Using CalColor™ on the lights lighting the Green/Blue screen can also help compensate for inconsistencies in colour that happen when creating the Green/Blue screen. This situation occurs sometimes when different batches of paint are used to paint the same wall, the painted wall surfaces were not primed the same colour so they reflect the Green/Blue differently or a piece of fabric is hung next to a painted wall. The colour difference is because there are differing levels of Red and Blue energy reflecting back to your eye/camera – the Green level is usually relatively consistent. So, by eliminating the Red & Blue at the source, many of these problems can be fixed. This story helps explain what I mean:

A commercial was shooting a large green screen environment in a sound stage at Raleigh Studios in Manhattan Beach California. The studio had painted an entire wall of the sound stage with Rosco Digicomp™ Green and hung a large "Digi-Green" piece of fabric for the side wall. The "Digi-Green" fabric did not match the paint. *Note* "Digi-Green" is not Rosco Digicomp™ Green. The "Digi- Green" fabric in this story refers to the foamy, Velcro based, green fabric that does not match any of our paints. Digicomp™ Green Fabric was designed to match our Digicomp™ Paint and would not have resulted with this issue.

The clients who had rented the stage, and specified "Digi-Green" as their colour, were upset that the wall and fabric did not match, so the studio contacted me and I visited the site to evaluate what could be done. I brought some CalColor™ 30 Green gel with me to the studio and it was placed on a KinoFlo Image 80. Under normal, "white" lighting conditions, the painted wall and the fabric did not match. However, once bathed in CalColor™ Green light, the two surfaces did match. The gaffer ended up lighting the green screen with several powerful Space Lights, so in this case they ended up using CalColor™ 60 Green and the situation was solve

It should be noted that this technique cannot be used in cove shots or shots that entail a painted floor. Since the subject is standing there, the floor cannot be bathed in CalColor™ Green/Blue light because the subject will also be inappropriately bathed in the Green/Blue light.

Another great use of CalColor™ Green/Blue is in conjunction with our Digicomp™ Green/Blue Fabric. The fabric is coated, medium weight muslin and is relatively translucent. This makes it perfect for small Green/Blue screen shots that need to be backlit. Again, too much excess energy will come through the fabric using just "white" light. So, by applying CalColor™ Green/Blue to the light back lighting the Digicomp™ Blue/Green Fabric, the purity of colour is achieved. This story explains what I mean:

For the feature film "Sky High", a movie about super heroes, the set required a large computer monitor (roughly 5'x10'). The production decided that green screen would be more cost effective than a true monitor that size, however, there was no way to properly light the green screen "monitor," so the production needed a way to back light the green screen. They used Digicomp™ Green Fabric and had KinoFlo fixtures with CalColor™ 30 Green on the barn doors built into the set behind the Digicomp™ Green Fabric.

Another similar use was in the feature film "Southland Tales". The production wanted the character to be playing a classic, upright, arcade videogame, but they wanted to have specific imagery on the screen of the video game. The monitor components were removed and replaced with Digicomp™ Green fabric backlit again with small fluorescents gelled with CalColor™ 30 Green.

This technique is limited to smaller compositing shots (think also, product shots for commercials) because Digicomp™ Fabric is 1.47m wide. If sewn together for a wider screen, the seams would show up in a backlit situation.

Technical Testimonial Data written by: Joel Svendsen - Rosco Motion Picture & Television Product Manager.

Basic Blue Screen and Green Screen Photography DVD

Now available from Rosco helping to instruct customers on how to properly set up a Green/Blue screen shot.

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