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TYPES OF PAINT

Acrylic Paints (Beginner's Choice)

<u>Advantages</u>

- Water-Based clean-up, no expensive thinners (Tip: Best agent to thin acrylic paint is Future Floor Finish)
- Excellent variety of colors
- Extremely flat finish

<u>Disadvantages</u>

•Very quick drying, hard to blend

Enamel Paints

<u>Advantages</u>

- Slower drying, Easy to Blend
- Excellent variety of colors
- Excellent variety of metallic and Gloss finishes

Disadvantages

•Noxious Thinner required

Artist Oils

Advantages

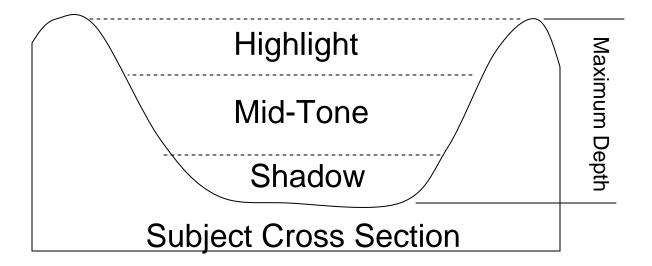
- Slowest drying, Easiest to Blend
- Excellent Blending Properties Minimizes Number of Colors Required
- Translucent

<u>Disadvantages</u>

- Noxious Thinner required (Turpentine)
- Expensive
- Sealant required

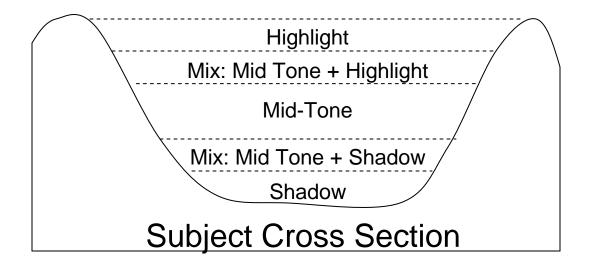
PAINT METHODOLOGY

Basics of Depth and Light:



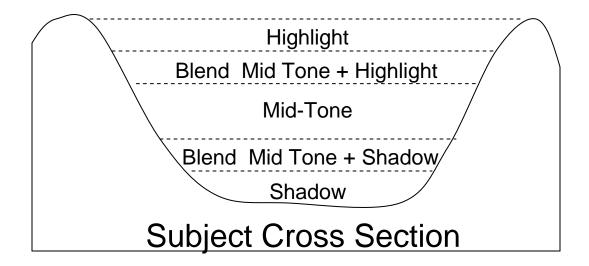
Acrylic Painting

Acrylics are hard to blend so a layering technique is required.



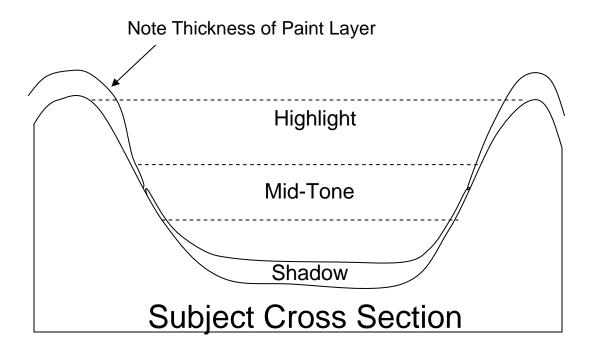
Enamel Painting

Enamels are easier to blend so pre-mixed Layers are not required.



Artist Oils

Oils are the easiest to blend and have the most Translucency. Paint a mid-tone base then add shadow and highlight.



TECHNIQUES

Drybrushing From Elliot Sanders' web site: http://www.ellsweb.com

Drybrushing is a highlighting technique which is excellent for raised details. Use a brush specifically for dry brushing wide, flat and soft.

Drybrushing is most effective when used with a color a shade or two lighter than the base.

Take your desired color and an old brush (as drybrushing wears brushes out) and dip it into the paint until the tip is saturated, then blot on a paper towel until no paint can be seen on a dark brush, or a light one looks pretty clean.

Take the brush and gently draw it along the raised parts you want highlighted. A little paint will stay on the highest edges and give great depth.

Note:

Dry brushing is NOT a good technique for large, wide, flat surfaces or areas with little detail. You should also be aware that it becomes chalky when too thick a paint is applied, or it can get messy by going over it too much when the paint beneath is still wet. Before applying the next lighter shade, be sure the paint on the figure is always dry.

There should be ALMOST NO paint on the brush, none whatsoever and it should take MANY coats to start to show detail. Too many people apply the technique too hard and with too much paint (although, in some cases can be the desired effect). Remember too that you can drybrush in various ways, don't always drybush left->right, but do up and down and in circles and diagonals to ensure maximum coverage and detailing.

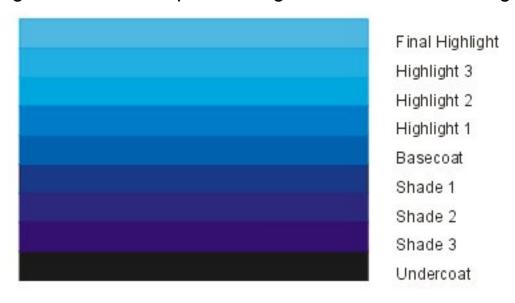
Blending From Elliot Sanders' web site: http://www.ellsweb.com

Blending is used to highlight large, wide, flat surfaces and areas with little detail (Like a William's Bros. Pilot Figure). Blending is rather difficult and takes much practice. To blend one changes the tone of the paint as it crosses the surface of any non-detailed section. Darker shades are laid into any depressions and carefully thinned and blended into the surrounding areas using a damp brush.

Note:

Highlighting should be accomplished in stages, lightening the shade a little with each level. Highlighting is VERY dependant on the transucency of the paint, ensure it is the consistency of between cream and milk and try to keep the coatings on the raised parts (rather than let it run into the recesses).

When belnding paint, or layering if your using acrylics, you should aim for the smoothest transition between the darkest colour (either the basecoat if you follow the 'standard method', or if you prefer to paint both highlights and shadows from the basecoat, the darkest shadow colour) and the lightest. The example below is from a black undercoat, up through dark blue to a pleasant light whiteish blue final highlight.



Shading From Elliot Sanders' web site: http://www.ellsweb.com

Shading is basically making the deepest creases and recesses of the miniature (folds in the cloth, hair, etc) darker than those parts that are elevated. It will give the illusion of depth, because the size of the miniature inhibits natural highlighting, so we get the perception that there is light shining upon the miniature and that makes it more realistic.

To shade, you either use pre-mixed inks or make your own by mixing black or brown (black on dark colors, brown on lighter colors such as yellow or red) with the base color. Your looking for a free-flowing but pigmented fluid that runs into the crevices of the figure and picks out details. If you mess up, wipe off excess and repaint the base area. The dilution ratio of 1 part paint to between 5 and 10 thinning solution is best, depending on the deepest shade required. For ink anywhere between 1 droplet of ink, to 1 water or thinning solution, up to a maximun mix of around 1 ink to 20 parts thinning solution is best.

Note:

Artists who work on large scale resin busts or figurines often apply the shading like a highlight - that is they paint smaller and smaller dark paint into the recesses until they have used the final shade color in the very deepest nooks.

Washes

Inks and paints can be applied thinly over base coats as washes. They sit in the recesses and form the shadows, though they often add a shine to the figure. Washes are translucent and thin and are applied over a base coat. Washes can help to reduce contrast between the highlights and shadows and are useful if you overdid some shading or contouring. You can incorporate washes into your shading too!

Typical wash is diluted 1 Part Paint: 10 Parts Thinner

Note:

Once applied, let the wash dry completely before moving on or it can "Wash All the paint off your piece.

APPLICATIONS

Flesh Tones Taken from my website: http://www.acesofiron.com

The following is a very basic process to give your figures a realistic appearance. The paint scheme uses an enamel base and artists oils to highlight and shadow. I use the same methods described below to paint all the Aces of Iron® figures on this site.

Philosophy- Whether you are painting flesh, leather canvas or metal, the basic idea of figure painting is to paint a mid tone base, wash with a dark shadow tint, then add light highlights.

The combination of enamels and artists oils allows a simple and effective method to achieve dramatic results with limited budget and time and requires surprisingly little artistic background. The translucence of the oils allows remarkable detail with simple layering and the long set time of the oils is very forgiving for first time painters.

Supplies:

Paints

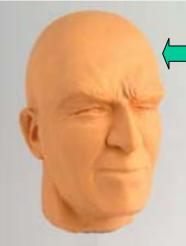
- •Small tin of good base enamel, I prefer Humbrol Enamel Flesh (Matt# 61), but Tamiya Flat Flesh XF-15 Acrylic is also a good base.
- Small tube of artist oil "Burnt Sienna"
- •Small tube of artist oil "Cadmium Yellow"
- •Small tube of artist oil "Flat or Flake White"
- •Small tube of artist oil "Raw Umber"
- Small tube of artist oil "Cadmium Red"
- Testors "Dullcote" spray paint

Brushes

- •Small detail brush- Sable Hair or soft bristle
- •Medium detail brush- Sable Hair or soft bristle
- •Medium Flat brush- Sable Hair or soft bristle

Miscellaneous

•Small palette (if you really want to feel like a painter) or something to squeeze paint onto such as small cardstock



Step 1 (Base Coat) - Paint the entire surface with a base coat. I prefer Humbrol Enamel Matt Flesh #61. Allow about 24 hours for the base to completely dry.

Step 2 (Shadow Base) - Paint the entire surface with "burnt sienna" artist oil. Apply the coat fairly thick and make sure you work paint into all the crevices. Clean your brush on the soft dry cloth, do not use turpentine, just keep wiping the brush on the cloth.





Step 3 (Shadow Tint) - Use the soft flat brush to gently remove the excess paint from the raised areas of the face. Wipe the brush on the soft dry cloth to remove the paint you remove from the raised areas of the face. Continue the process until you achieve a soft contrast between the shadows and the raised highlights.

Step 4 (Highlight Base) - Use the medium detail brush to apply a thin layer of "Cadmium Yellow" to the raised areas. Allow the paint to set for about an hour before proceeding.

Step 5 (Highlight Blend) - Use the clean soft dry detail brush to gently blend the yellow highlights. Blending is a process of removing the thick areas of the paint with the soft dry brush and blending the edges into the undercoat with a soft zig-zag motion.

Step 6 (Highlight 2) - Use the medium detail brush to apply a thin layer of "Flat or Flake White" to the same raised areas from step 4. Allow the paint to set for about an hour before proceeding.

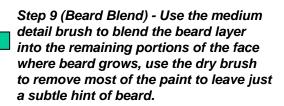
Step 7 (Highlight 2 Blend) - Use the clean soft dry detail brush to gently blend the white highlights using the same blending process described in step 5.

Step 8 (Beard Shadow) - Use the small detail brush to apply a thin layer of "raw umber" to the areas of the face where beard grows. notice I only apply paint to about half the area leaving the highlight areas unpainted. The thickness of the layer will determine the amount of "growth" in the final face; Thin for less growth, thick for more growth.

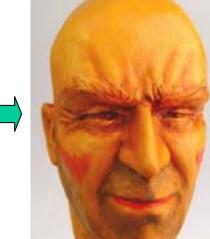








Step 10 (Red Tint) - Use the small detail brush to apply a <u>thin</u> layer of "Cadmium Red" to the cheekbones of the face and the lower lip (no paint on the upper lip or he'll look like he's wearing lipstick).

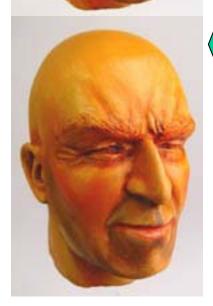




Step 11 (Red Blend) - Use the medium detail brush to blend the red layer, use the dry brush to remove most of the paint to leave just a subtle tint of red.

Step 12 (Final White Highlight) - Use the small detail brush to add "flat or flake white" highlights to the detail areas shown. Wait one hour for the paint to "set" before proceeding to the blending step.





Step 13 (Blend White Highlight) - Use the small detail brush to gently blend the white highlights of the detail areas. This time don't remove as much of the white layer as in previous steps. This will add nice contrast in the final piece.

Step 14 (Final Dark Shadow) - Use the small detail brush to add "raw umber" to the detail areas shown (Edge of nose, Thin mouth line and mouth corners, just above chin and upper lip cleft).





Step 15 (Blend Dark Shadows) - Use the small detail brush to gently blend the dark shadows of the detail areas. This time don't remove as much of the dark layer as in previous steps. This will add nice contrast in the final piece.

Step 16 (Allow to Dry) - Let the piece set for 24-hours. Oils lighten over time and your piece will blend naturally over time.





Step 17 (Dullcote) - This is my "secret weapon". I spray the piece with dullcote to seal it and also to help to blend the layers. The dullcote is dry to the touch after about an hour and is completely dry after 24-hours.







Leather Taken from my website: http://www.acesofiron.com

he following is a very basic process for painting Leather.

Supplies:

Enamel Paint Colors Used

- •Flat Burnt Sierra, Model Master 2007
- •Flat Black, Model Master 1749
- •Flat Gelb (Yellow) RLM 04, Model Master 2072
- •Flat Red, Testors 1150
- •Testors "Dullcote" spray paint

Brushes/Miscellaneous

- •Medium detail brush- Sable Hair or soft bristle
- Turpentine



Step 1 (Base) - Paint the entire leather area with flat black and allow paint to dry completely.

Step 2 (Mid Highlights) - Use the burnt sienna to "Dry brush" the color to the raised areas of the leather. Dry brushing is a process of first wiping most of the paint from the brush then gently dragging the brush over the surface of paint area. The paint will adhere to the raised areas and will not seep into the deep areas.



Step 3 (Final Highlight) - Mix (3) parts flat yellow to (1) part flat red and (1) part burnt sienna to create a light orange-brown. "Dry brush" the color to the raised areas of the leather using more paint towards the edges or seams of the leather. This step will age the leather and the more orange added, the older and worn the leather will appear. My reference photo has heavy highlights to create an antique look.

Step 4 (Dullcote) - Spray the whole sculpture with dullcote to blend and seal.





Eyes Taken from my website: http://www.acesofiron.com

The following is a very basic process for painting eyes.

Supplies:

Enamel Paint Colors Used

- •Flat Burgundy or Maroon
- Flat Black
- •Flat Light Gray
- •Flat Light Blue, Light Green, or Light Brown (Depending on Preferred Eye Color)
- •Flat White
- •Testors "Dullcote" spray paint

Brushes/Miscellaneous

- •Small detail brush- Sable Hair or soft bristle
- •Fine point pen



Step 1 (Base) - Paint the entire eye area with a Burgundy base (Include the inside of the lower eyelids and tear ducts)

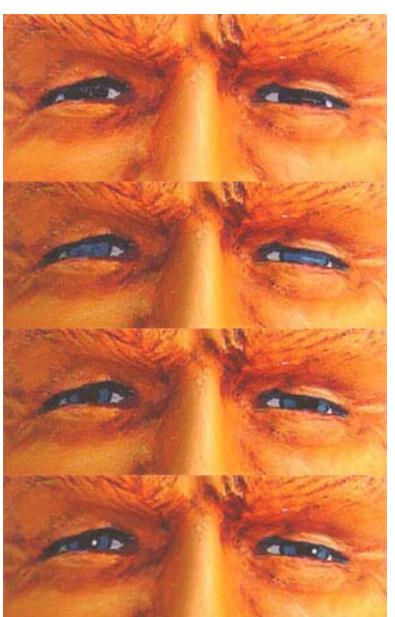
Step 2 (Dark Shadow) - Paint the inside of the upper eyelids with a flat black (This will add contrast and simulate the eyelashes).

Step 3 (Eyeball) - Paint each eyeball with light gray.



Step 4 (Mark the Pupils) - Use the fine point marker to mark the location of the pupil in each eye. Using a marker will reduce the chance the final figure ends up cross-eyed.

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Step 5 (Define the Cornea) - Paint the entire cornea area using flat black.

Step 6 (Color the Cornea) - Use your preferred eye color to paint the cornea, leave a flat black edge around both sides of each cornea.

Step 7 (Add Pupils) - Paint the pupils using flat black.

Step 8 (Add Highlight) - Paint a small flat white dot on the right half of each pupil.



Step 9 (Dullcote) - Spray the figure with dullcote to seal the paint and blend the details. Some people add a spot of glosscote to the eyes, but I don't like the effect as reflecting light tends to wash-out all the details that were painted into the eyes.

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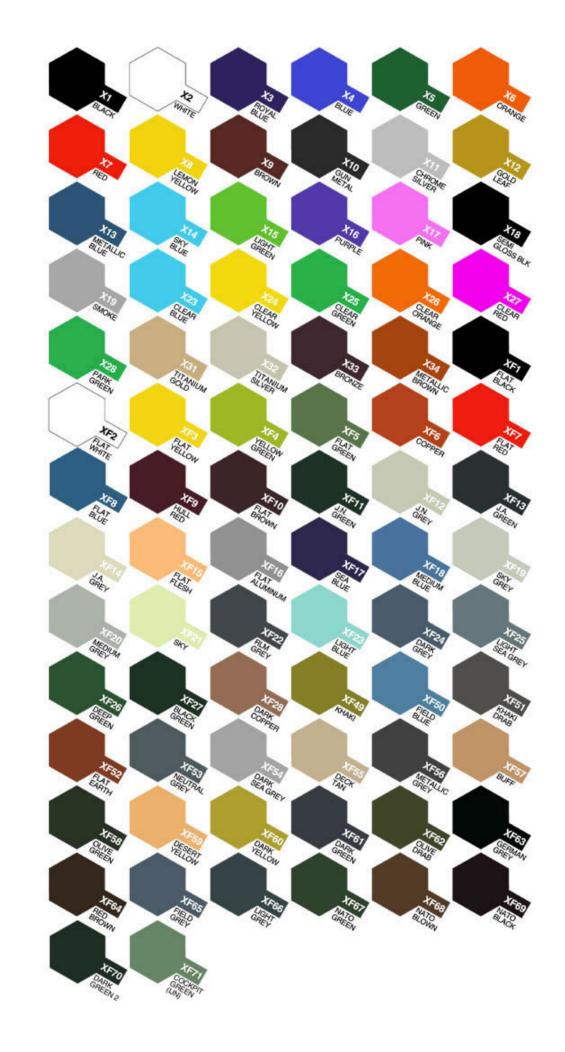
COLORGUIDES



HUMBROL COLOR LIST

HUM 1 - MATTE PRIMER	HUM 81 - MATTE PALE YELLOW	HUM 165 - SATIN MEDIUM SEA GREY
HUM 2 - GLOSS EMERALD GREEN	HUM 82 - MATTE ORANGE LINING	HUM 166 - SATIN LIGHT AIRCRAFT GREY
HUM 3 - GLOSS BRUNSWICK GREEN	HUM 83 - MATTE OCHRE	HUM 167 - SATIN RAF BARLEY GREY
HUM 5 - GLOSS DARK AD GREY	HUM 84 - MATTE MID STONE	HUM 170 - MATTE BROWN BESS
HUM 7 - GLOSS LIGHT BUFF	HUM 85 - SATIN COAL BLACK	HUM 171 - MATTE ANTIQUE BRONZE
HUM 9 - GLOSS TAN	HUM 86 - MATTE LIGHT OLIVE	HUM 174 - SATIN LIGHT GREY
HUM 10 - GLOSS SERVICE BROWN	HUM 87 - MATTE STEEL GREY	HUM 186 - MATTE BROWN
HUM 11 - METALLIC SILVER	HUM 88 - MATTE DECK GREEN	HUM 187 - MATTE DARK STONE
HUM 12 - METALLIC COPPER	HUM 89 - MATTE BEIGE OBEEN	HUM 191 - GLOSS CROME SILVER
HUM 14 - GLOSS FRENCH BLUE HUM 15 - GLOSS MIDNIGHT BLUE	HUM 90 - MATTE BEIGE GREEN HUM 91 - MATTE BLACK GEEN	HUM 195 - SATIN DARK GREEN HUM 196 - SATIN LIGHT GREY
HUM 16 - METALLIC GOLD	HUM 92 - MATTE BLACK GEEN HUM 92 - MATTE IRON GREY	HUM 200 - GLOSS PINK
HUM 18 - GLOSS ORANGE	HUM 93 - MATTE DESERT YELLOW	HUM 201 - METALLIC BLACK
HUM 19 - GLOSS BRIGHT RED	HUM 94 - MATTE BROWN - YELLOW	HUM 208 - GLOSS SIGNAL GREEN
HUM 20 - GLOSS CRIMSON	HUM 96 - MATTE RAF BLUE	HUM 209 - GLOSS FIRE ORANGE
HUM 21 - GLOSS BLACK	HUM 98 - MATTE CHOCOLATE	HUM 220 - GLOSS FERRARI RED
HUM 22 - GLOSS WHITE	HUM 99 - MATTE LEMON	HUM 221 - SATIN GARTER BLUE
HUM 23 - MATTE DUCK EGG BLUE	HUM 100 - MATTE RED BROWN	HUM 250 - MATTE DESERT SAND
HUM 24 - MATTE TRAINER YELLOW	HUM 101 - MATTE MID GREEN	
HUM 25 - MATTE BLUE	HUM 102 - MATTE ARMY GREEN	
HUM 26 - MATTE KHAKI	HUM 103 - MATTE CREAM	
HUM 27 - MATTE SEA GREY	HUM 104 - MATTE OXFORD BLUE	
HUM 28 - MATTE CAMOUFLAGE GREY	HUM 105 - MATTE MARINE GREEN HUM 106 - MATTE OCEAN GREY	
HUM 29 - MATTE DARK EARTH HUM 30 - MATTE DARK GREEN	HUM 109 - MATTE OCEAN GREY	
HUM 31 - MATTE SLATE GREY	HUM 110 - MATTE WWY BLUE	
HUM 32 - MATTE DARK GREY	HUM 111 - MATTE UNIFORM GREY	
HUM 33 - MATTE BLACK	HUM 112 - MATTE TARMAC	
HUM 34 - MATTE WHITE	HUM 113 - MATTE RUST	
HUM 35 - GLOSS CLEAR POLY COAT	HUM 116 - MATTE US DARK GREEN	
HUM 38 - GLOSS LIME GREEN	HUM 117 - MATTE US LIGHT GREEN	
HUM 40 - GLOSS PALE GREY	HUM 118 - MATTE US TAN	
HUM 47 - GLOSS SEA BLUE	HUM 119 - MATTE LIGHT EARTH	
HUM 48 - GLOSS MEDITERRANIAN BLUE		
HUM 49 - MATTE VARNISH	HUM 121 - MATTE PALE STONE	DEV
HUM 50 - METALLIC GREEN MIST	HUM 123 - SATIN LIS DARK SEA G	REY
HUM 51 - METALLIC SUNSET RED HUM 52 - METALLIC BALTIC BLUE	HUM 125 - SATIN US DARK GREY HUM 126 - SATIN US MEDIUM GREY	
HUM 54 - METALLIC BRASS	HUM 127 - SATIN US GHOST GREY	
HUM 55 - METALLIC BRONZE	HUM 128 - SATIN US COMPASS GREY	,
HUM 56 - METALLIC ALUMINUM	HUM 129 - SATIN US GULL GREY	
HUM 60 - MATTE SCARLET	HUM 130 - SATIN WHITE	
HUM 61 - MATTE FLESH	HUM 131 - SATIN MID GREEN	
HUM 62 - MATTE LEATHER	HUM 132 - SATIN RED	
HUM 63 - MATTE SAND	HUM 133 - SATIN BROWN	
HUM 64 - MATTE LIGHT GREY	HUM 135 - SATIN VARNISH	
HUM 65 - MATTE AIRCRAFT BLUE	HUM 140 - MATTE GULL GREY	ie.
HUM 66 - MATTE TANK OREY	HUM 144 - MATTE INTERMEDIATE BLU	JE
HUM 67 - MATTE TANK GREY HUM 68 - GLOSS PURPLE	HUM 145 - MATTE MEDIUM GREY HUM 147 - MATTE LIGHT GREY	
HUM 69 - GLOSS YELLOW	HUM 148 - MATTE EIGHT GRET HUM 148 - MATTE RADOME TAN	
HUM 70 - MATTE BRICK RED	HUM 149 - MATTE DARK GREEN	
HUM 71 - SATIN OAK	HUM 150 - MATTE FOREST GREEN	
HUM 72 - MATTE KHAKI DRILL	HUM 153 - MATTE INSIGNIA RED	
HUM 73 - MATTE WINE	HUM 154 - MATTE INSIGNIA YELLOW	
HUM 74 - MATTE LINEN (YELLOW)	HUM 155 - MATTE OLIVE DRAB	
HUM 75 - MATTE BRONZE GREEN	HUM 156 - SATIN DARK CAMOUFLAGE	E RED BROWN
HUM 76 - MATTE UNIFORM GREEN	HUM 157 - MATTE AZURE BLUE	
HUM 77 - MATTE COCKPIT OF FALL	HUM 159 - MATTE CERMAN CAMOUS	ACE DED DDOMAL
HUM 78 - MATTE BLUE CREV	HUM 160 - MATTE GERMAN CAMOUFL	LAGE KED BKOWN
HUM 79 - MATTE BLUE-GREY HUM 80 - MATTE GRASS GREEN	HUM 163 - SATIN DARK GREEN HUM 164 - SATIN DARK SEA GREY	
HOW OU - WAT TE GRASS GREEN	HOW TON - SATIN DAKK SEA GRET	

TAMIYA ACRYLICS



WINSOR & NEWTON OILS



REFERENCES

Books

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Modeling WWII Figures- Rodrigo Hernandez Cabos, ISBN: 1-84176-137-0

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http://www.ellsweb.com

http://www.solis-media.co.uk/relocated/miniatures/