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### 2K MATT CLEAR COAT VARNISH

#### DEFINITION

**DUAL MATT HS** is a highly versatile 2K clear coat for car refinish and industry. It can be used as a clear coat for applications requiring matt topcoats. Also, when satin topcoats are required, **DUAL MATT HS** can be mixed with the different 2K clear coats offered in the Roberlo range to offer different levels of topcoats. Similarly, if extra matt topcoats are required, it can be mixed with UB-100 matting paste.

Especially recommended for partial coatings, **DUAL MATT HS** guarantees high quality and durable topcoats.

#### PHYSICAL CHARACTERISTICS

Nature: Colour: Specific weight: Viscosity CF/4: Dry film thickness: VOC: SOLIDS CONTENT: Acrylic 2K Translucent white 1.0 kg/l a 20°C 18-20" a 20°C 25-35 microns 2 coats 496 g/l Application 2004/42/EC - IIB(e)(840) 496 g/l 52 % Application

#### COMPLEMENTARY PRODUCTS

KX44 Hardener slow hardenerKX45 Standard HardenerKX46 Fast hardener Hardener

S322 Standard Thinner S324 Slow Thinner UB-100 Matting paste

| Tª (ºC) | Hardener   | Hardener | Thinner |  |
|---------|------------|----------|---------|--|
| < 18    | KX46       | KX46     | S322    |  |
| 18 - 25 | KX45- KX46 | KX45     | S322    |  |
| > 25    | KX45       | KX44     | S324    |  |

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#### PREPARATION OF THE MIXTURE

First mix **DUAL MATT HS** very well. Then mix it with the complementary products. When adding the complementary products, mix well after adding each of them. Shake the mixture just before application.

#### SURFACE OR SUBSTRATE PREPARATION

Apply **DUAL MATT HS** after the evaporation time recommended by the manufacturer has elapsed.

#### APPLICATION

| DUAL<br>MATT HS | А • В • С           |         | S<br>S              |          |  | mm                            | bar                   | <b>−</b> →<br>cm         |         | <u> </u> |
|-----------------|---------------------|---------|---------------------|----------|--|-------------------------------|-----------------------|--------------------------|---------|----------|
| KX45            | 100:33:15<br>Weight | 3:1+15% | 20<br>18-20"<br>F/4 | °C<br>3h |  | 1,2-1,3<br>1,5-1,7<br>1,2-1,3 | 2-2,5<br>2-3<br>2-2,5 | 15 - 20<br>15 - 20<br>10 | 2 coats | 5'       |

Wait until complete evaporation before applying the second coat, and before drying at room temperature.

#### DUAL MATT HS DRYING

|      | 20º C |    |    |    |      | 60º C | IR - OC          |              |              |
|------|-------|----|----|----|------|-------|------------------|--------------|--------------|
|      |       |    |    | Q  |      |       |                  | FLASH<br>OFF | FULL<br>BAKE |
|      |       |    |    |    |      |       | LIGHT<br>COLOURS | 5'           | 10'          |
| КХ45 | 20'   | 3h | 5h | 7h | КХ45 | 30'   | DARK<br>COLOURS  | 4'           | 8'           |
|      |       |    |    |    |      |       | METALLISED       | 5'           | 10'          |

The drying temperature influences the final Gloss, drying at room temperature, oven or IR will result in different Glosses.

#### MIXING AND GLOSS TABLE

| GRADE        | GLOSS % (^60º) | GLOSS CLEAR<br>COAT | DUAL MATT | TINTING PASTE<br>UB-100 |
|--------------|----------------|---------------------|-----------|-------------------------|
| SEMIBRILLANT | 50-75          | 20                  | 80        | -                       |
| SATIN        | 40-50          | 10                  | 90        | -                       |
| SEMIMATE     | 30-40          | 5                   | 95        | -                       |
| MATT         | 20-30          | 0                   | 100       | -                       |
| EXTRAMATE    | 10-20          | 0                   | 95        | 5                       |
| ULTRAMATE    | <10            | 0                   | 90        | 10                      |

- See Annex I

#### The Gloss of a clear coat is greatly affected by:

- Thickness of film
- Number of coats
- Amount of added Thinner
- Drying conditions
- Substrate on which it is applied (two coat water base, two coat solvent base...)

#### REMARKS

Moisture alters the components of the clear coat and therefore the application equipment must be absolutely dry.

Close the Hardener container immediately after use.

In conditions of relative humidity above 70% and/or temperatures below +10°C, drying at 60°C is recommended.

The uniformity of the topcoat is very important. Therefore it is necessary to apply the clear coat evenly. The matting is given by discontinuities created in the film. Consequently, application processes and more or less loaded coats are very important to allow a correct positioning of the particles, which cause the interferences encountered by the light when it hits the film.

Gloss differences will be observed if there are different film thicknesses: a topcoat with low thickness and dry application will give a lower gloss than a topcoat with high thickness and wet application.

When it is necessary to paint small surfaces next to each other, it is advisable to make a test piece with the same equipment and application and drying conditions with which the repair project is going to be carried out, in order to control the Gloss and colour. Use a tape that does not leave adhesive residues, as cleaning it could cause an increase in gloss in that area.

When working with matt clear coats, it is necessary to check the dirt and the application of the product very carefully, as it is not possible to remove defects by polishing. Polishing would increase the Gloss of the area. It is not possible to use the patching technique as the increased thickness of the blending area causes gloss variation.

#### **2K MATT CLEAR COAT VARNISH**



| CLEANING OF | F THE EQUIPMENT   |
|-------------|---|
|             | Clean with cleaning thinner before the product hardens.   |
| SAFETY      | Refer to the product label. For further information see safety data sheet. Comply with health and safety at work and waste disposal directives. |
| STORAGE     |   |
|             | Keep in a cool and ventilated place avoiding exposure to direct sunlight. Store between $+5^{\circ}$ C and $+.30^{\circ}$ C                     |
| SHELF LIFE  | One year in original unopened packaging.  |
|             |   |
|             |   |
|             |   |
|             |   |
|             |   |
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|             |   |

**2K MATT CLEAR COAT VARNISH** 



#### **ANNEX I**

#### MIXING RATIOS BY WEIGHT

| GLOSS        | KRONOX 3700 | DUAL MATT HS | UB-100 | K35  | \$322 |
|--------------|-------------|--------------|--------|------|-------|
| SEMIBRILLANT | 20          | 80           | 0      | 35   | 10-15 |
| SATIN        | 10          | 90           | 0      | 35   | 10-15 |
| SEMIMATE     | 5           | 95           | 0      | 35   | 10-15 |
| MATT         | 0           | 100          | 0      | 35   | 10-15 |
| EXTRAMATE    | 0           | 95           | 5      | 35   | 10-15 |
| GLOSS        | KRONOX 3200 | DUAL MATT HS | UB-100 | K35  | \$322 |
| SEMIBRILLANT | 20          | 80           | 0      | 35   | 10-15 |
| SATIN        | 10          | 90           | 0      | 35   | 10-15 |
| SEMIMATE     | 5           | 95           | 0      | 35   | 10-15 |
| MATT         | 0           | 100          | 0      | 35   | 10-15 |
| EXTRAMATE    | 0           | 95           | 5      | 35   | 10-15 |
| GLOSS        | KRONOX 620  | DUAL MATT HS | UB-100 | KX45 | \$322 |
| SEMIBRILLANT | 20          | 80           | 0      | 35   | 10-15 |
| SATIN        | 10          | 90           | 0      | 35   | 10-15 |
| SEMIMATE     | 5           | 95           | 0      | 35   | 10-15 |
| MATT         | 0           | 100          | 0      | 35   | 10-15 |
| EXTRAMATE    | 0           | 95           | 5      | 35   | 10-15 |
| GLOSS        | KRONOX 510  | DUAL MATT HS | UB-100 | KX45 | \$322 |
| SEMIBRILLANT | 20          | 80           | 0      | 35   | 10-15 |
| SATIN        | 10          | 90           | 0      | 35   | 10-15 |
| SEMIMATE     | 5           | 95           | 0      | 35   | 10-15 |
| MATT         | 0           | 100          | 0      | 35   | 10-15 |
| EXTRAMATE    | 0           | 95           | 5      | 35   | 10-15 |
| GLOSS        | KRONOX 500  | DUAL MATT HS | UB-100 | KX45 | \$322 |
| SEMIBRILLANT | 20          | 80           | 0      | 35   | 10-15 |
| SATIN        | 10          | 90           | 0      | 35   | 10-15 |
| SEMIMATE     | 5           | 95           | 0      | 35   | 10-15 |
| MATT         | 0           | 100          | 0      | 35   | 10-15 |
| EXTRAMATE    | 0           | 95           | 5      | 35   | 10-15 |

#### **2K MATT CLEAR COAT VARNISH**



| GLOSS        | UNIX 650HS | DUAL MATT HS | UB-100 | C355  | S322  |
|--------------|------------|--------------|--------|-------|-------|
| SEMIBRILLANT | 20         | 80           | 0      | 50    | 0-5   |
| SATIN        | 10         | 90           | 0      | 50    | 0-5   |
| SEMIMATE     | 5          | 95           | 0      | 50    | 0-5   |
| MATT         | 0          | 100          | 0      | 50    | 0-5   |
| EXTRAMATE    | 0          | 95           | 5      | 50    | 0-5   |
| GLOSS        | UNIX 450HS | DUAL MATT HS | UB-100 | C355  | \$322 |
| SEMIBRILLANT | 20         | 80           | 0      | 50    | -     |
| SATIN        | 10         | 90           | 0      | 50    | 0-5   |
| SEMIMATE     | 5          | 95           | 0      | 50    | 0-5   |
| MATT         | 0          | 100          | 0      | 50    | 0-5   |
| EXTRAMATE    | 0          | 95           | 5      | 50    | 0-5   |
| GLOSS        | UNIX 250HS | DUAL MATT HS | UB-100 | C355  | S322  |
| SEMIBRILLANT | 20         | 80           | 0      | 40    | 5-10  |
| SATIN        | 10         | 90           | 0      | 40    | 5-10  |
| SEMIMATE     | 5          | 95           | 0      | 40    | 5-10  |
| MATT         | 0          | 100          | 0      | 40    | 5-10  |
| EXTRAMATE    | 0          | 95           | 5      | 40    | 5-10  |
| GLOSS        | UNIX 150HS | DUAL MATT HS | UB-100 | P5000 | S322  |
| SEMIBRILLANT | 20         | 80           | 0      | 45    | 0-5   |
| SATIN        | 10         | 90           | 0      | 45    | 0-5   |
| SEMIMATE     | 5          | 95           | 0      | 45    | 0-5   |
| MATT         | 0          | 100          | 0      | 45    | 0-5   |
| EXTRAMATE    | 0          | 95           | 5      | 45    | 0-5   |
| GLOSS        | UNIX 50HS  | DUAL MATT HS | UB-100 | KX45  | S322  |
| SEMIBRILLANT | 20         | 80           | 0      | 35    | 10-15 |
| SATIN        | 10         | 90           | 0      | 35    | 10-15 |
| SEMIMATE     | 5          | 95           | 0      | 35    | 10-15 |
| MATT         | 0          | 100          | 0      | 35    | 10-15 |
| EXTRAMATE    | 0          | 95           | 5      | 35    | 10-15 |

#### **2K MATT CLEAR COAT VARNISH**



| GLOSS        | VT141 EXPRESS | DUAL MATT HS | UB-100 | CT5  | S322  |
|--------------|---------------|--------------|--------|------|-------|
| SEMIBRILLANT | 20            | 80           | 0      | 35   | 10-15 |
| SATIN        | 10            | 90           | 0      | 35   | 10-15 |
| SEMIMATE     | 5             | 95           | 0      | 35   | 10-15 |
| MATT         | 0             | 100          | 0      | 35   | 10-15 |
| EXTRAMATE    | 0             | 95           | 5      | 35   | 10-15 |
| GLOSS        | GLOBAL 6000   | DUAL MATT HS | UB-100 | KX45 | S322  |
| SEMIBRILLANT | 20            | 80           | 0      | 35   | 10-15 |
| SATIN        | 10            | 90           | 0      | 35   | 10-15 |
| SEMIMATE     | 5             | 95           | 0      | 35   | 10-15 |
| MATT         | 0             | 100          | 0      | 35   | 10-15 |
| EXTRAMATE    | 0             | 95           | 5      | 35   | 10-15 |

These products are for professional use only. The Safety Data Sheet must be consulted before use and the precautionary warnings on the product packaging must be observed. Their correct use, in accordance with their purpose and respecting the technical and safety data provided in these documents, is the sole and exclusive responsibility of the user. ROBERLO S.A.U. declines any responsibility due to the incorrect use of any product.

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