

# VC850 Matte / VC800 Semi-Gloss Clearcoat System

## Product Data Sheet



The versatile PPG VELOCITY® VC850 Matte / VC800 Semi-Gloss Clearcoat System consists of two 2K acrylic urethane clearcoats designed to easily and quickly reproduce a range of gloss levels for specialized repairs of vehicles originally finished with a low gloss clearcoat. To allow for gloss variations, the actual mix of the two clearcoats may vary to match the vehicle being repaired.

### Compatible Products



#### Apply over:

- VB Basecoat

### Substrate Preparation



- When masking a repair, care should be taken to minimize direct contact of masking tape onto the original matte finish. When it is necessary to use making tape directly on the original finish, the tape must be removed before baking to avoid marking of the original which may not recover.
- VC850/VC800 clearcoats must be applied on top of a clean and dust-free basecoat. The use of a tack cloth is recommended after the basecoat has flashed off.
- Wash all surfaces to be painted with soap and water, then apply the appropriate ONECHOICE® cleaner. Ensure that the substrate is thoroughly cleaned and dried both before and after application work.
- Wet sand with U.S. 500–600 / European P800–P1200-grade paper or dry sanding with U.S. 400–500 / European P600–P800-grade paper.
- Wash off residue and dry thoroughly before re-cleaning with appropriate cleaner. The use of a *OneChoice* tack rag is recommended.

### Application Guide



#### Mix Ratio

VC850 Matte/VC800 Semi-Gloss Clearcoat	2 parts
VH101 Standard Hardener	1 part
VR35X UHS Thinner	1 part

#### Hardeners

VH101 Standard Hardener

#### Thinners

VR351 UHS Fast Thinner	60-75° F (15-24° C)
VR352 UHS Normal Thinner	72-87° F (22-31° C)
VR353 UHS Slow Thinner	85-97° F (29-36° C)
VR354 UHS Extra Slow Thinner	Above 93° F (34° C)



#### Pot Life

2 hours at 70° F (21° C)

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### Application Guide (cont.)



#### Spray Gun Setup and Pressure

Fluid tip	1.2 – 1.4 mm
Viscosity at 70° F (21° C)	15 seconds with a DIN4
HVLP at the air cap	8 – 10 psi
Compliant at the spray gun	26 – 29 psi

For best overall results, refer to the spray gun manufacturer's recommendations for optimum inlet air pressures.



#### Application

- 1 full, wet, single coat with flash off and 1 full coat and a light crosscoat
- 2.0 – 2.4 mils suggested dry film build



#### Drying Times

Dust-free, air dry	45 minutes at 70° F (21° C)
Dry to handle, air dry	8 hours at 70° F (21° C)
Force dry	30-40 minutes at 140° F (60° C)
Infrared purge	5 – 7 minutes
Infrared short wave	15 minutes
Infrared medium wave	20 minutes

#### Flash Off

Between coats, 15-30 minutes or until fully flashed off at 70° F (21° C)

Force dry times are quoted for metal temperature. Additional time should be allowed in the force-drying schedule to allow metal to reach recommended temperature.



#### Recoating

VC850/VC800 Clears must be cleaned and sanded before recoating to ensure proper adhesion



#### Gloss Level Adjustment

To allow for various gloss levels depending on the color or model of the vehicle, VC800 Matte and VC850 Semi-Gloss clearcoats may be blended together to match the required gloss level. The % ratios quoted below are the best starting point for the five gloss levels.

	FC01 Flat	FC02 Matte	FC03 Eggshell	FC04 Satin	FC05 Semi-Gloss
Example of gloss level	LAMBORGHINI® full-body finish	-	MERCEDES-BENZ®, SMART™, BMW® or FIAT® full-body finish	-	Mercedes-Benz plastic side mouldings
VC850 Matte : VC800 Semi-Gloss (mix %)	100 : 0	70 : 30	50 : 50	30 : 70	0 : 100

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### Performance Guidelines

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- The use of HVLP spray equipment can give an increase in transfer efficiency of around 25% depending upon the make and model of the equipment used.
- Partially used cans of hardener must be carefully closed. Store all content in a cool dry place away from heat.

### General Care and Maintenance of Matte Finishes

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The following guidance on care and cleaning of matte finish vehicles is aimed at the car owner, and applies to both the OE and repair finish. Particular care must be taken with matte finishes to maintain an original even matte effect. See below for guidance for the car owner on maintaining the even matte effect over time.

Matte/low-gloss finishes can be relatively easily marked with general handling and day- to-day use (door/hood/deck lid opening, shoe scuffing on entry or exit of vehicle etc.). Care should be taken with these operations because marking or changing of the matte effect could result.

Care should be taken to avoid spillage of fuel onto the matte/low gloss finishes. Fuel spills should be removed as soon as possible using the washing guidelines below to avoid permanent damage or altering of the low gloss effect.

1. To keep the matte surface effect, the use of paint cleaner, abrasives or polishes and wax polishes must be avoided. The vehicle must not be polished.
2. Polishing will lead to a higher, uneven gloss effect.
3. Cleaning with unsuitable materials could alter the matte effect (generally increasing gloss).
4. Automated car washing should be avoided. The preferred car washing method is by hand with a soft sponge, mild soap and lots of water. Frequent car washing over a period of time could lead to increased and inconsistent gloss levels across a car panel. Washing under direct sunlight should also be avoided.
5. Insects and bird droppings should be removed immediately. These residues should be soaked in water to soften and/or remove carefully with high pressure cleaning equipment. In the case of strongly adhered residues, a spray on insect remover should be used prior to washing.
6. Whenever using any type of cleaning fluids with soft sponges or cloths, it is essential not to apply pressure or rub the matte finish. A gentle wipe/spray on, wipe off technique should be used. Applying pressure will alter the matte effect and result in an uneven appearance.

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### Technical Data

RTS Information	VC850/VC800 : VH101 : VR35X 2:1:1
Coating category	Matte Clear Coating
VOC actual (g/L)	612 – 622 g/L
VOC actual (lbs./U.S. gal.)	5.11 – 5.19 lbs./gal.
VOC regulatory (g/L) (less water less exempt)	612 – 622 g/L
VOC regulatory (lbs./U.S. gal.) (less water less exempt)	5.11 – 5.19 lbs./gal.
Density (g/L)	979.1 – 988.7 g/L
Density (lbs./U.S. gal.)	8.17 – 8.25 lbs./gal.
Volatiles weight %	62.0 – 63.5%
Water weight %	0.0%
Exempt weight %	0.0%
Water volume %	0.0%
Exempt volume %	0.0%
Solids volume %	29.5 – 30.2%
Solids weight %	36.5 – 38.0%
Coverage at 1 mil at 100% transfer efficiency (sq. ft.)	473.2 – 484.4 sq. ft.

### Health and Safety

See Safety Data Sheet and Labels for additional safety information and handling instructions.

- The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels and SDS of all the components, since the mixture will have the hazards of all its parts.
- Improper handling and use, for example, poor spray technique, inadequate engineering controls and/or lack of proper Personal Protective Equipment (PPE), may result in hazardous conditions or injury.
- Follow spray equipment manufacturer's instructions to prevent personal injury or fire.
- Provide adequate ventilation for health and fire hazard control.
- Follow company policy, product SDS and respirator manufacturer's recommendations for selection and proper use of respiratory protection. Be sure employees are adequately trained on the safe use of respirators per company and regulatory requirements.
- Store waterborne and solventborne waste separately. A competent agent with appropriate certification must handle all hazardous wastes. Wastes must be disposed in accordance with all federal, state, provincial and local laws and regulations.
- Wear appropriate PPE such as eye and skin protection. In the event of injury, see first aid procedures on SDS.
- Always observe all applicable precautions and follow good safety and hygiene practices.

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### Health and Safety (cont.)

#### Emergency Medical or Spill Control Information: (412) 434-4515

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