TECHNICAL DATA SHEET

W-THANE MSD 50

PRODUCT DESCRIPTION

High-performance two-component aliphatic acrylic polyurethane primer/finish with anticorrosive pigmentation. Good chemical and continuous weathering resistance, excellent color and gloss retention, high resistance to atmospheric agents, high hardness and impact performance.

RECOMMENDED USE

Excellent finish for painting agricultural and road implements, machinery, parts, and equipment requiring natural weathering resistance.

CERTIFICATIONS AND APPROVALS

When supplied to comply with the ROHS Directive (Restriction of Certain Hazardous Substances), this product includes the letter R in its nomenclature description.

PACKAGING

Component A	3.6L Package containing 3L 20L Package containing 16.65L
Component B	0.9L Package containing 0.6L 3.6L Package containing 3.35L

CHARACTERISTICS

Color	According to customer standard. RAL and Munsell chart.
Gloss	Gloss (>80 UB) W-THANE MSD 501 Semi-gloss (60 - 80 UB) W-THANE MSD 502 Semi-matte (30 - 60 UB) W-THANE MSD 503 Matte (15 - 30 UB) W-THANE MSD 504 Ultra-matte (0 - 15 UB) W-THANE MSD 505
VOC content	482.75 g/l
Volume Solids	40 ± 5% (ISO 3233)
Shelf Life	12 months
Dry Film Thickness	50 µm - 80 µm
Dry Heat Resistance	Maximum temperature 90 °C. The product maintains its chemical properties up to a temperature of 90 °C, but from 60°C, color and gloss variations in the paint may occur.
Theoretical Coverage	6,15 m2/l without dilution at a dry film thickness of 65 µm. Loss factors during application are not considered.

DRYING

Drying

	10 °C	25 °C	35 °C
Touch	2 hours	1 hour	25 min
Manipulation	16 hours	8 hours	6 hours
Final	192 hours	168 hours	168 hours

Recoat Drying

	10 °C	25 °C	35 °C
Minimum	18 hours	12 hours	10 hours
Maximum	48 hours	48 hours	48 hours

SURFACE PREPARATION

Standard Surface Preparation

The performance of this product is related to the degree of surface preparation. In case of doubts, for more information, consult WEG's Technical Department.

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Completely remove oils and greases by applying a degreasing product or according to the solvent cleaning method. Whenever cleaning surfaces with cloths, replace them to avoid saturation. Do not use cotton waste or colored cloths.

Accumulated dirt must be removed using a dry brush, and soluble salts must be removed by washing with fresh water under high pressure.

Recommended Surface Profile

It is recommended a roughness profile between 20 and 30 micrometers.

Abrasive Blasting

For other applications, it is recommended to paint on surfaces blasted to Sa 2½ or Sa 3 grade, according to SSPC-SP10 or SSPC-SP5, respectively. Visual standard ISO 8501-1.

Evaluate the surface after blasting, observing revealed defects and adopt practices to minimize them, such as grinding or filling.

Maintenance and Repair

NOTE: Respect the recoating interval for subsequent coat application. If exceeded, perform light manual/mechanical sanding to break the previous coat gloss, followed by dust and residue cleaning to ensure better adhesion between paint layers.

Carbon Steel Surfaces

Completely remove oils, greases, soluble salts, and other contaminants according to SSPC SP1 solvent cleaning method. Rinse with high-pressure fresh water.

The surface must be clean, dry, and free of contaminants.

Over Aged Coating

For aged paint with good adhesion, perform light sanding to break gloss and clean dust/residues, ensuring better adhesion between coats.

It is recommended to test the paint on a small area to check compatibility and ensure aged paint is well adhered. Loose or poorly adhered paints must be removed. Repainting should be done only on well-preserved surfaces.

It is acceptable to adopt less stringent preparation standards as long as contaminant absence is ensured via high-pressure fresh water cleaning (5,000-10,000 psi) according to SSPC-SP12/NACE No.5. In case of doubt, consult the technical area.

Remove all contaminants from the existing paint. Areas where the film is not adhered must be removed with light blasting grade Sa 1 (brush off) or according to SSPC-SP7, ISO 8501-1 visual standard. Corrosion points, worn, or damaged areas must be prepared by commercial abrasive blasting grade Sa 2, ISO 8501-1 standard or SSPC-SP6/NACE No.3, SSPC-VIS 1 standard. If not possible, use rotary-mechanical tools according to SSPC-SP 11.

For intact and well-preserved Inorganic Zinc Silicate Shop Primers, prepare only with a nylon brush or low-pressure fresh water washing (up to 5,000 psi), according to SSPC-SP12/NACE No.5.

For Epoxy Iron Oxide Shop Primers, ensure primer is intact, clean, and dry. If the maximum recoat interval is exceeded, perform manual/mechanical sanding to break gloss and ensure adhesion between layers.

APPLICATION PREPARATION

Mixing	Homogenize the content of the container using mechanical or pneumatic stirring. Ensure no sediment remains at the bottom of the container.
Mixing Ratio	By volume: 5 A x 1 B.
Thinner	PU DILUENT 5008
Dilution	Depending on the application method, dilute to a maximum of 20%.
Notes	The amount of Diluent may vary depending on the type of equipment used and environmental conditions during application. Only add Diluent after complete mixing of the other components. Do not dilute with solvents not allowed by local legislation, and do not exceed the indicated dilution percentage. Excessive dilution may affect film formation, appearance, and make it difficult to achieve the

		specified thickness.
	Pot Life	3 h The shelf life of the mixture is reduced as the ambient temperature increases. The pot-life test of the mixture is carried out according to ABNT NBR 15742; however, different volumes of paint prepared at once, combined with varying ambient and paint temperatures, will affect the mixture's shelf life, potentially resulting in outcomes different from those stated in this technical bulletin.

APPLICATION METHODS

Conventional Spray Gun	Spray gun: JGA 502/3 Devilbiss or equivalent Fluid nozzle: EX Air cap: 704 Atomization pressure: 60 - 65 psi Tank pressure: 10 - 20 psi.
Brush	Recommended only for small area touch-ups or "stripe coat" (screws, nuts, weld beads, sharp corners, and touch-ups). For application with brush and/or roller, it may be necessary to apply two or more coats to achieve a uniform layer and the recommended film thickness.
Cleaning of the equipments:	PU DILUENT 5008
Notes	Changes in pressures and nozzle sizes may be necessary to improve spraying characteristics. Purge the compressed air line to avoid paint contamination. Before application, ensure that the equipment and respective components are clean and in optimal condition. After mixing two-component products, if there are application stops and the pot life has been exceeded (paint shows variation in flow), it can no longer be re-thinned for later application. Reinforce all sharp corners, gaps, and weld beads with a brush to avoid premature failures in these areas. Clean all equipment immediately after use. Do not leave material in hoses, guns, or equipment used for spraying. Thoroughly wash all used equipment.

APPLICATION PERFORMANCE

For coatings applied in coastal areas exposed to sea spray, it is recommended to wash with fresh water between coats to remove deposited impurities.

Light colors may require more than one coat to achieve uniform coverage.

Do not apply the product after the pot life has been exceeded.

For optimal application properties, the paint temperature should be between 21°C and 27°C before mixing and application.

Painting is recommended only if surface temperature is at least 3°C above the dew point.

Substrate temperature, climatic and environmental conditions during application and curing, as well as applied film thickness, may affect drying time.

Must not be applied under adverse conditions, such as relative humidity (RH) above 85%, as color and appearance changes may occur.

Polyurethane systems (components A and B) are sensitive to relative humidity, which may cause defects in the dry film and reduction in pot life. After use, keep containers closed and protected.

Paintings performed with varying application methods on the same project may result in differences in gloss and final appearance.

Small variations in color, appearance, and gloss (more noticeable in dark colors), as well as delayed curing and performance compromise, may occur during high humidity, rainy days, cold locations, or when parts dry outdoors.

SAFETY PRECAUTIONS

Product developed for industrial use intended for handling by qualified professionals. Carefully read all information contained in the SDS of this product, available at: www.weg.net.

Store in a covered and well-ventilated place. Keep the container tightly closed and away from sources of heat or ignition.

Use only in well-ventilated areas, avoiding the accumulation of flammable vapors. Keep the product away from heat and sources of ignition.

Do not inhale mists/vapors/aerosols generated during handling and/or application. Use protective gloves/protective clothing/eye protection/face protection.

Empty containers and materials with paint residues must be disposed of according to current legislation. Take care of the environment.

NOTE

The information contained in this technical bulletin is based on the experience and knowledge acquired in the field by WEG's technical team.

In the event of using the product without prior consultation with WEG regarding its suitability for the purpose for which the customer intends to use it, the customer acknowledges that the use will be at their own exclusive responsibility, and WEG is not liable for the behavior, safety, suitability, or durability of the product.

Some information mentioned in this bulletin is only an estimate and may vary due to factors beyond the manufacturer's control. Therefore, WEG does not guarantee and assumes no responsibility for performance, efficiency, or any material or personal damages resulting from the incorrect use of the products in question or from the information contained in this Technical Bulletin.

The information contained in this technical bulletin is subject to periodic modifications, without prior notice, due to our policy of continuous improvement and evolution of our products and services, providing quality solutions to meet the needs of our customers.

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