TECHNICAL DATA SHEET

SYLPYL 3600/3480

PRODUCT DESCRIPTION: **SYLPYL 3480** is a solvent-based, multi-resin epoxy coating enriched with special nanocomponents. It acts as a high-performance fire barrier, functioning as a sublimating, intumescent, and fire-retardant system, with high effectiveness in case of fire.

RECOMMENDED USES: **Steel structures:** columns, beams, pipe racks, galvanized surfaces, concrete, and wood. Fire protection by preventing steel from reaching critical temperatures that could compromise structural integrity. Intumescent and sublimating barrier designed to: delay fire spread, maintain structural integrity during fire exposure, prevent collapse, and provide time for evacuation and fire-fighting efforts..

CERTIFICATIONS AND APPROVAL: This product has been tested and approved according to the UL 263 fire curve, applicable to cellulosic fires in buildings. It protects structural steel from reaching the critical temperature of 538 °C for a duration of 1 to 3 hours.
This standard is equivalent to several international standards such as ASTM E-119, NFPA 251, ISO 834, and BS 476. The product is also certified by ICC-ES (International Code Council Evaluation Service).

PACKAGING:

Component	Content	Package
	19L	20L

CHARACTERISTICS:

Color:	White and other light colors.
Gloss:	Matte
VOC content:	15,74 g/l
Volume solid:	68,8 ± 1% (ISO 3233).
Shelf-Life (25°C):	6 months
Thickness per coat (dry):	250 µm – 3.000 µm
Theoretical coverage:	1,42 m²/l without dilution at a dry film thickness of 2.000 µm. Does not account for application losses.
Resistance to dry heat:	Maximum temperature 60 °C . The product retains its physical and chemical properties up to the temperature of 60 °C. Above this temperature, variations may occur.

Drying:

	20 °C
Touch:	30 minutes
Handling:	48 hours
Final:	60 hours
Recoat interval:	8 hours

Drying time for topcoat recoating:	**20 °C**
Min	5 days
Max	10 days

SURFACE PREPARATION

The performance of this product is directly related to the degree of surface preparation. Completely remove oils, greases, and fats by applying a degreasing agent or following the solvent cleaning method specified in **SSPC SP1**.

On steel: in areas with very high relative humidity, use abrasive blasting to near-white metal grade (SSPC-SP 10). In areas with medium or low relative humidity, manual mechanical cleaning (SSPC-SP 2) or power tool cleaning (SSPC-SP 3) may be used. Apply the primer immediately after surface preparation to prevent reoxidation.

It is recommended to apply one coat of SYLPYL 13 primer. SYLPYL 3480 is compatible with high-quality shop-applied alkyd primers that are in good condition. It is very important to perform compatibility tests — if 3480 is applied over an alkyd primer and delamination occurs, a tie coat of SYLPYL 13 should be applied to ensure proper adhesion.

ON PREVIOUSLY APPLIED PRIMER: Remove any loose parts, surface dust, and unwanted contaminants. Avoid sea breeze, dust, and other contaminants between system layers. If the previous primer is damaged, remove rust by mechanical or manual means and repair with SYLPYL 13, SYLPYL 13 AS, or SYLPYL 120 AS.

ON CONCRETE: Remove any loose parts, surface dust, and unwanted contaminants. Avoid sea breeze, dirt, and other contaminants between system layers. Apply one coat of SYLPYL 77 as primer, followed by SYLPYL 3480 as a fire barrier.

In indoor applications, the product retains its color for many years, even without a topcoat.

NOTE: Respect the recoat interval specified for this product before applying the next layer. If the maximum recoat interval is exceeded, a light manual or mechanical sanding must be performed to dull the gloss of the previous coat, followed by cleaning of dust and sanding residues to ensure better adhesion between coats.

For further information, consult WEG Technical Department (tintas@weg.net).

PREPARATION FOR APPLICATION

Mixture
Due to its composition with special fillers and fibers, the product must be vigorously mixed in the container until perfectly homogenized, preferably with motorized mechanical agitation.

Mixing ratio (Volume)
Monocomponente

Diluent

Diluent epóxi 3005

Dilution
Depending on the application method, dilute at most 5%

Do not dilute with solvents that are not allowed by local legislation and do not exceed the recommended dilution percentage.

Only add the diluent after complete mixing of components A + B.

The quantity of diluent may vary depending on the type of equipment used and the ambient conditions during the application.

Excessive dilution of the coating may affect the formation and aspect of the film and not allow to reach the specified thickness.

Pot life of the mixture (25°C)
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Induction time (25°C)
No induction time is required.

In hot areas, we recommend consulting WEG Technical Department.

APPLICATION FORMS

The data below is a guide, and similar equipment may be used.

Changes in pressure and nozzle sizes may be necessary to improve the spraying characteristics.

Before application, ensure that the equipment and its components are clean and in optimal condition.

Reinforce all sharp edges, gaps, and weld seams using a brush to prevent premature failures in these areas. When applying by spray, ensure a 50% overlap of each spray pass to avoid uncoated and unprotected areas, finishing with a cross-pass.

It can be applied with spraying equipment or airless equipment.

Manual application:

Roller or brush, aiming for a uniform finish.

Equipament cleaning:

Diluent epoxi 3005

NOTE:

Clean all equipment immediately after use.

Do not allow the catalyzed product to remain in contact with the application equipment, as temperatures above the pot life specification will alter the product's flow properties and cause it to harden, making cleaning difficult.

It is also considered good working practice to clean the spray equipment periodically throughout the day. The cleaning frequency will depend on the amount sprayed, ambient temperature, and elapsed time, including any interruptions.

PERFORMANCE IN THE APPLICATION

For a good performance of the product, we recommend following the directions below:

It is easily applied in the appropriate thicknesses to ensure the integrity of installations for a sufficiently long period, allowing for firefighting efforts and preventing the fire from spreading to adjacent areas.

Unlike old cementitious fire barriers, which overload the structure and crack, losing their effectiveness, FIRESYL SYLPYL 3480 provides excellent adhesion to steel and steel deck (metallic slab). Additionally, it has outstanding corrosion-inhibiting properties, and the film formed exhibits extraordinary cohesion and hardness. These characteristics prevent the fire protection from deteriorating over time. It does not crack or peel off during its service life, ensuring that the metal never becomes exposed. This product does not contain asbestos or loose mineral fibers that could contaminate the building.

FIRESYL SYLPYL 3480 functions as an "intumescent" coating, as it expands when exposed to direct fire, increasing its original thickness multiple times. However, unlike similar products, it is also "sublimating," like dry ice, as the special resins and nanocomponents it contains transition directly from solid to gas phase. This phenomenon absorbs a massive amount of heat from the fire. This way, the required protection for steel (beams and columns) against overheating is achieved, preventing it from losing its structural mechanical strength due to the high temperatures generated.

Sublimating fire barriers and intumescent, fireproof, flame-retardant, and insulating coatings based on solvent, highly effective. Upon contact with the flame, it expands and increases its original thickness, forming an insulating and highly resistant barrier that protects steel. This type of product is enriched with special nanocomponents. It is free from lead and asbestos.

Thus, throughout this process, the product gradually transforms into a carbon insulating layer that protects the substrate, keeping its temperature much lower than that of the flame. This prevents the risk of structural deformation or building collapse. Furthermore, FIRESYL SYLPYL 3480 is a product free of lead and chromates.

Advantages of SYLPYL 3480

It withstands the high temperatures of direct fire, preventing the flame from spreading to other areas and protecting the steel from overheating.

It is tested according to the UL 263 time-temperature curve for building fire exposure.

Unlike cementitious fire protection coatings, which do not protect steel against corrosion, this product acts as an effective anticorrosive and does not crack during seismic events. Furthermore, it does not overload the structure due to its low film thickness.

It prevents the premature collapse of facilities or buildings in the event of a fire.

It maintains its performance for many years, even in highly aggressive and corrosive environments (Certified according to NORSOK M-501).

The protective film formed does not disintegrate and is resistant to abrasion.

It shows excellent adhesion to steel, unlike traditional SFRM (Spray-Applied Fire Resistive Materials), which have very low adhesion.

Its weather resistance is excellent and is further enhanced when topcoated with high UV-resistant finishes such as Sylpyl polyurethane or polysiloxane systems.

For further information, consult WEG Technical Department. (tintas@weg.net).

SYSTEM COMPATIBILITY AND MAINTENANCE RECOATING

The recoat interval of the primer must be respected before applying the topcoat.
If the maximum indicated interval is exceeded, it is necessary to perform manual or mechanical sanding to dull the gloss. The primer surface must be dry and free from contaminants.

For further information, consult WEG Technical Department.

SAFETY PRECAUTIONS

Product developed for industrial use intended for handling by qualified professionals.

Please read carefully all the information contained in the MSDS of this product, available at: www.weg.net.

Do not expose the packaging to the weather or direct sunlight. As this is a fire protection material, it contains thermosensitive components that may harden inside the container at elevated temperatures. After such exposure, even if still within the stated parameters, the product's color tone may vary—without compromising its fire barrier performance.

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

Do not inhale mists / vapors / aerosols generated during handling and / or application.

Wear protective gloves / protective clothing / eye protection / face protection.

Empty containers and materials with paint residues must be disposed of in accordance with current legislation. Care for the environment.

NOTE:

The information contained in this technical datasheet is based upon the experience and knowledge acquired in the field by the technical team of WEG.

If using the product without previous inquiry to WEG Coating concerning its suitability for the customer's intended purpose, the customer is aware that the use shall be its exclusive responsibility, WEG not being responsible for behavior, safety, suitability or durability of the product.

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