Monarflex Temporary Enclosure

Installer's Guide

09-2023 Version

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With you every step of the way

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I. Monarflex Products System Overview

Siplast Monarflex System

Siplast Monarflex enclosure sheeting products are comprised of virgin low density polyethylene (LDPE) sheeting encapsulating a high strength polyester reinforcement grid. Monarflex sheeting is designed to cover and weatherproof construction & surface treatment projects from environmental conditions. Monarflex applications are designed as temporary treatments and should not be considered for permanent or long term use.

II. Products

Scaffold Sheeting

- Siplast Monarflex Super T Plus Flamesafe Scaffold Sheeting
- Siplast Monarflex Scaffband Plus Flamesafe Scaffold Sheeting

Accessories (as needed)

- Siplast Monarflex Anchor Straps
- Siplast Monarflex Flexities
- Siplast Monarflex Self-Adhered Grommets
- Siplast Monarflex Monobond Tapes

III. Personal Protection

For professional use only. Refer to the applicable Monarflex Commercial Product Data Sheets (CPDS), Safety Data Sheets (SDS), project specifications, and application instructions. Ensure that proper personal protective equipment is used to protect the applicators against health and safety risks. These can include, but are not limited to: hardhats, gloves, eye protection, high visibility clothing, safety footwear, and harnesses.

Always follow OSHA safety guidelines when applying Monarflex products. Refer to OSHA requirements for information regarding competent and/or Qualified Person on your specific scaffold enclosure project.

IV. Storage and Handling

Rolls of Monarflex sheeting material are individually wrapped and labeled. Wrapped rolls are stacked on pallets. Materials stored on the job site during application should be kept on a pallet in a location that will protect the materials from rain or construction damage. Attachment accessories should be stored in original packaging.

Blue Monobond Tape, White Monobond Tape, and Self-Adhesive Grommets should be stored away from moisture and protected from heat in a clean location to protect adhesive properties.

V. Installation Tools

For the installation of Monarflex scaffold sheeting and accessories, the following tools are recommended:

Application

- Tape (masking and duct tape)
- Box or razor knife
- Tape measure
- Come-along

Miscellaneous

- Steel cable and connectors
- Drill for cable anchors
- C-clamps
- Caution tape
- Plastic garage bags
- Chalk line
- Socket set

VI. Structure and Scaffold Preparation

Ensure the structure is evaluated by a qualified designer/engineer to determine wind loads and the maximum design load for an enclosed structure. This includes anchoring scaffold components and rigging to the permanent structure. Monarflex can be applied to tubular welded systems, and tube and coupler-type scaffolding. For applications to platforms, please contact the specific platform manufacturer for approval.

Scaffold should be tagged for approved use by a person competent in scaffold use as recommended by OSHA before work is performed. Ensure all scaffold components including guardrails, midrails, cross braces, platforms, planks, etc. are secure. The sheeting is not intended as a replacement for guardrails on the structure. Sharp edges of scaffold connections should be covered to protect sheeting. Monarflex can also be applied to aircraft cable or wire rope when using Siplast Monarflex Anchor Straps and Monarflex Super T sheeting membrane. It is important to ensure all cables are secured and tensioned per design recommendations. All structural and cable connectors require sharp edges to be covered to prevent tearing of the sheeting.

VII. Monarflex Application to Scaffolding

Install Monarflex scaffold sheeting in accordance with the current standards and codes. Care should be taken to reduce unnecessary wear and mechanical damage to sheeting when dragging over rough surfaces and contact with sharp edges. Installation of Monarflex scaffold sheeting is designed for application on the outside of the scaffolding, with the eyelets on Monarflex Super T or reinforced bands on Monarflex Scaffband or stripe facing outward. This will allow the sheeting to detach in high winds, as per its design, alleviating the build-up of pressure on the structure. Do not apply Monarflex enclosure products if there is a threat of high winds. High winds pose a safety concern and can also damage a partially installed Monarflex enclosure and components.

The sheeting should be in direct contact with and fixed firmly to the open edges of platforms, handrails, etc., leaving no gaps where possible. The sheeting overlap should be determined according to containment type. Debris containment should be lapped with the bottom horizontal sheet overlapping the upper sheet to ensure debris is contained. Weatherproofing containments should be applied in a shingle fashion, with the upper horizontal sheet overlapping the lower horizontal sheets. Neither of these apply to vertical run sheeting applications.

Containments are typically applied horizontally from the ground level upward. Sheeting should be overlapped 5 to 8 inches. Double-sided tape can be applied to provide weatherproof junctures. End laps on both horizontal and vertical applications should overlap a minimum of 5 to 8 inches. It is good practice to have end laps near a structural component to secure joints in the sheeting. Double-sided tape can be applied to weatherproof junctures.

Roof Tie-In

When extending Monarflex over the top of a scaffold to weatherproof the juncture of the scaffold and structure, either install a scaffold truss or, alternatively, install cables as roof supports to attach the scaffold sheeting. Always install near the grommet line to ensure attachments can be secured..

Attachments and Fastening Frequency

Monarflex Scaffband

Monarflex Scaffband sheeting is not wind tested, so the project engineer should review the attachment fastening frequency. Only Flexities should be used to attach Monarflex Scaffband sheeting. At a minimum, there should be one Flexitie per 100 square feet or every 38 inches. Do not over-stretch attachment straps/ties. Attachment straps/ties should not be placed within two inches of the edge of the sheet.

Monarflex Super T

See the Siplast Monarflex Attachment Guide for wind load resistance for various spacing and strap types for Monarflex Super T scaffold sheeting. The spacing and attachment type is determined by the desired or specified wind load. In some cases, fewer attachments may be required to ensure that the sheeting breaks away from structures in weather events to prevent damage to the structure.

VIII. Monarflex Application to Cable Structures

Cable installations should be evaluated by a qualified designer/engineer. Cables can be installed horizontally, vertically, or ideally in both directions. When Monarflex is to be applied to cable suspended structures, Monarflex Super T should be the only sheeting type used. Monarflex Scaffband is not recommended for cable structure applications. To ease application of the Monarflex Super T the cable should be run parallel to the planned grommet lines.

Steel outriggers or fabricated brackets may be required to extend the cable structure beyond the building, ensuring the sheeting can be installed free from contact with uneven building surfaces. For horizontal applications of the 13 foot Monarflex rolls, it is recommended that vertical cables be run every 7 feet for a higher wind resistant application. Cables spaced every 9 foot 4 inches provide a medium grade wind resistance, and an 11 foot 8 inch spacing offers lower wind resistance.

Horizontal base cables should be installed at ground level and at the top of the containment or the termination, with an additional horizontal cable at each seam of 13 foot height. Horizontal cables should be tensioned and connected to the vertical cables. Anchor all vertical cables to steel brackets or structure to withstand the wind loads caused by the scaffold sheeting attached to them. To gauge which cable spacing should be used, please review the Monarflex Attachment Guide on Siplast.com. This chart shows the maximum recommended spacing per strap or tie, or the coverage a strap or tie can safely secure based on the estimated wind loads the scaffold sheeting will need to resist. C-clamps or similar can be used to terminate Monarflex scaffold sheeting at steel I-beams or similar conditions.

Wall Terminations

For both scaffold and cable applications at wall terminations, utilize a board or steel bracket to fasten the sheeting to the wall. Monarflex Tapes may be required for weather-tightness. Always follow OSHA safety guidelines when applying Monarflex products. Damage to sheeting & components during construction should be repaired and/or replaced.

Rips, large holes, or temporary windows should be patched with the same Monarflex material used on the project. These patches can be taped in place with Monobond tape. For a more robust repair, apply the Self-Adhesive Grommet along with Anchor Straps to splice the sheets together. Larger repairs may require full replacement of damaged areas. It is important to repair damage as soon as possible as these holes allow wind infiltration, which can damage other parts of the enclosure or structure. Contact Siplast at 1-800-922-8800 for more information.

IX. Removal and Disposal

Always ensure weather conditions permit the safe removal of Monarflex materials. Working in an upward fashion, the intermediate attachment straps and upper straps should be removed, allowing the top half of the horizontal sheeting run to fold over on itself. It is best to have a minimum of two people for removal of sheeting. One person can cut the attachment straps and loose sheeting while the other is gathering and rolling the loose sheet. With the Monarflex horizontally folded on itself, cut the lower straps while simultaneously rolling the sheet.

Sections of removed Monarflex should be bundled with rope and marked by size and condition if re-usable or disposed of. Dispose of used Monarflex by taking used material to an appropriate treatment and disposal facility in accordance with applicable laws and regulations at the time of disposal. In cases where the sheeting may have been in contact with suspect contaminants, seek advice from the appropriate environmental agency for disposal requirements.