# MULTİPLAN
YALITIM SİSTEMLERİ SAN. ve TİC. A.Ş.


Precise solution from foundation to roof...

NUHGROUP

VWS
Multiplan®
Vertriebs GmbH


Multiplan Yalıtım Sistemleri A.Ş. is one of the companies of Nuh Group, manufacturing of the high technology productions demanded by Turkish industrialists and building sector at Gebze Organized Industrial Site in its factories that are suitable to latest technology.

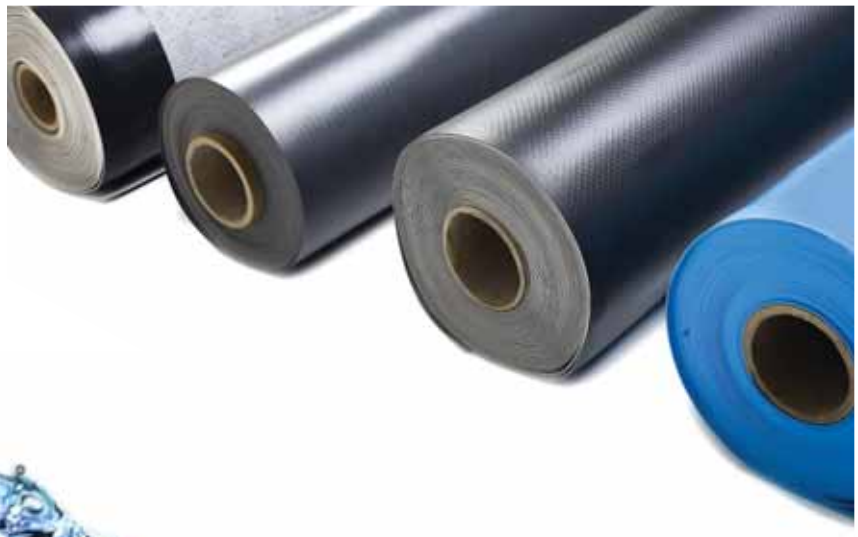
Multiplan Yalıtım Sistemleri A.Ş. was established in Turkey in 2004 by the cooperation of one of the leader PVC insulating membrane producers of Germany, VWS Multiplan, and Nuh Group. Multiplan started to offer the PVC and TPO water insulating membrans to Europe, Russia and to our countries' building sector at Kocaeli Gebze Organized Industrial Site after the Germany and Hungary factories. The production complies with TSE, CE and ISO 9001 standards that are also tracked by the independent test laboratories.

With the support of R&D and technical office, Multiplan Yalıtım Sistemleri that produces application details and solutions for projects, is one of the three biggest insulation companies of Europe.

As the first PVC membrane producer of Turkey Multiplan Insulating Systems, offers precise solutions to the buildings from foundation to roof for the water insulation. Multiplan provides water tank solutions with the Blue Water product that has a suitability certificate for drinking water and water insulation at the limitless fields, such as the foundations, roofs, terraces, balconies, tunnels, metro applications, underground car parks, car parking roofs, routes, and small lakes.

Thanks to the R&D company incorporated in its body, Multiplan Yalıtım Sistemleri developes itself continuously and manufactures TPO based water insulation membranes as the first in Turkey and one of the eight countries over the world.

Multiplan as the director of building sector and successful company of the initials continues its activities by presenting quality products and services in Turkey and all over the world by first day desires and wishes in a great excitement and punctilious with futuristic projections.



## Multiplan, Precise solution from foundation to roof

The most sensitive surfaces of buildings to water are the foundations and the roofs. The wrong materials applied in the application details come harder and more expensive than the first applications at repairs and restorations. With the latest technological level, Multipan's Water Insulation Membranes are the ideal water insulation systems that could be applied from foundation to interim layers, and from the interim layers to the roof, layer by layer.

PVC is a composite that has been also preferred by the environment friendly consumers with features of long-lasting, all weather-resistant, recyclable and ecological, thanks to producing with suitable and necessary material additives.

TPO is a new technologic product that is basically made of thermoplastic and polyolefin mixture, and presenting a long life resistant to Atmospheric conditions, solar rays (UV), plant roots, with high resistance against to tearing, puncture and wearing.

Multiplan's Water Insulation Membranes, owes being the consumers' preferred product to the following specifications:

- High quality warranty,
- Long service life,
- Explosion proof specialty,
- High mechanical resistance,
- Vapor permeability,
- Excellent joint welding possibility with hot air,
- High resistance to climatic conditions,
- Resistance to plant roots,
- Easy usage and application possibility,
- Being aesthetic (various color production facility)

The durability proven under the site conditions, of Multiplan's Water Insulation Membranes is very more than the other products. The products that have resistance to climatic conditions, from the pools to the topical, have a rather long life.

## Multiplan's Water Insulation Membranes usage fields

### Roof Insulation Systems

- Light metallic roofs
- Reinforced concrete terrace roofs
- Garden terrace roofs
- Parking lot terrace roofs

### Foundation Insulation Systems

- Floorings
- Curtain walls
- Wet volumes

### Water Constructions

- Pools
- Small lakes
- Drinking water tanks

# Multiplan FG

## UV Resistant, Reinforced PVC Roof Membrane

It is the soft PVC water membrane attached with hot air welding, resistant to atmospheric conditions and solar rays, polyester reinforced. The Multiplan FG serial PVC Multiplan's Water Insulation Membranes, are developed especially for all the roofs that are exposed to severe weather conditions and solar rays.

### Application Fields

- Light metallic roofs,
- Heat resistant and non-heat resistant cement roofs,
- Dome or different shaped cement or steel roofs.

### Avantajları

- Suitable to EN 13956 Standards.
- Polyester reinforced,
- Laminated layer, resistant to every kind of atmospheric conditions, solar rays and plant roots.
- Easy and qualified welding possibility,
- Rapid and economic application thanks to largely manufactured roller sizes,
- Free laying ability at cement and especially steel roofs with mechanical fixing,
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them.
- Flexibility, high dimensional stability and tear resistance
- Vapor-permeable,
- Recyclable, nature friendly material

| SPECIALITY | NECESS / Min. VALUE | RESULT | UNIT | TEST METHOD |
|---|---|---|---|---|
| Visible defects | Flawless | Flawless | - | EN 1850-2 |
| Waterproofing | ≥ 400 | ≥ 400 ≥ | kPa | EN 1928 (B) |
| Outer Fire Performance | Broof (t1) | Applicable | - | EN 13501-5 |
| Reaction to Fire | E Class | E Class | - | Classification EN 13501-1 |
| Joint Point Peeling Resistance | ≥ 200 | ≥ 300 | N/50 mm | EN 12316-2 |
| Joint Sliding Resistance | ≥ 800 | ≥ 900 | N/50 mm | EN 12317-2 |
| Tensile Strength | ≥ 800 | ≥ 1100 | N/50 mm | EN 12311-2 |
| Breaking Length | ≥ 15 | ≥ 40 | % | EN 12311-2 |
| Impact Resistance | ≥ 400 | 1000 | mm | EN 12691 (A) |
| Static Load Strength | ≥ 20 | ≥ 20 | Kg | EN 12730 (B) |
| Tear Resistance | ≥ 180 | ≥ 200 | N | EN 12310-2 |
| Resistance to Plant Roots | Applicable | Applicable | - | EN 13948 |
| Dimensional Stability | ≤ 1 | ≤ 1 | % | EN 1107-2 |
| Flexibility at Cold | ≤ 25 | ≤ 25 | °C | EN 495-5 |
| UV Resistance (1000 s) | Strength | Strength | - | EN 1297 |
| Water and Liquid Chem. Resis. (28 day/23 °C) | Strength | Strength | - | EN 1847 |
| Hail Resistance | ≥17 | ≥17 | m/s | EN 13583 |
| Water Vapor Permeability Assignation | 25000+_7500 | 25000±7500 | μ | EN 1931 |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE | COLOR |
|---|---|---|---|---|
| 1,2 - 1,5 - 1,8 - 2,0* - 2,4* | 1,1 - 1,45 - 1,65 | 15 - 20 | Dry sorage, in ori. packaging | Light grey ** |
| * Manufactoring special toy he Project | | | **Producing in demanded color due to the project | |

# Multiplan TPO

## UV Resistant, Reinforced Thermoplastic Polyolephine Based Roof Membrane

Multiplan TPO is a thermoplastic polyolephine based water insulation membrane that is resistant to atmospheric conditions and solar rays, and reinforced, welded with hot air. Multiplan's TPO membranes are designed for proving water insulation at all roofs that are exposed to strong air conditions and solar rays.

### Areas of Usage

- Light metallic roofs,
- Heat resistant and non-heat resistant cement roofs,
- Dome or different geometric shaped cement or steel roofs.

### Advantage

- Suitable to EN 13956 Standards.
- Polyester reinforced,
- Laminated layer, resistant to every kind of atmospheric conditions, solar rays and plant roots,
- Easy and qualified welding possibility,
- Rapid and economic application, because of largely manufactured roller sizes,
- Resistance to dissolution and rottenness,
- Free laying ability at cement and especially steel roofs with mechanical fixing,
- It reduces the energy consumption of the buildings, because of its high reflectance specialty,
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them,
- Flexibility, high dimensional stability and tear resistance,
- Recyclable, nature friendly material,
- Vapor-permeable,
- Matching with Bitumen.

| SPECIALITY | NECESS / Min. VALUE | RESULT | UNIT | TEST METHOD |
|---|---|---|---|---|
| Visible Defects | Flawless | Flawless | - | EN 1850-2 |
| Waterproofness | Nonpermeable | Nonpermeable | - | EN 1928 (B) |
| Outer Fire Performance | Broof (t1) | Applicable | - | EN 13501-5 |
| Impact to Fire | E Class | E Class | - | Classification EN 13501-1 |
| Joint Place Peeling Resistance | ≥ 200 | ≥ 300 | N/50 mm | EN 12316-2 |
| Joint Slipping MResistance | ≥ 600 | ≥ 800 | N/50 mm | EN 12317-2 |
| Tensile Resistance | ≥ 800 | ≥ 1100 | N/50 mm | EN 12311-2 |
| Breaking Lengthness | ≥ 15 | ≥ 20 | % | EN 12311-2 |
| Impact Resistance | ≥ 400 | ≥ 700 | mm | EN 12691 (A) |
| Static Load Strength | ≥ 20 | ≥ 20 | Kg | EN 12730 (B) |
| Tear Resistance | ≥ 180 | ≥ 300 | N | EN 12310-2 |
| Plant Root Resistance | Strength | Strength | - | EN 13948 |
| Dimensional Stability | ≤ 1 | ≤ 1 | % | EN 1107-2 |
| Flexibility at Cold | ≤ -30 | ≤ -30 | °C | EN 495-5 |
| UV Resistance (1000 s) | Strength | Strength | - | EN 1297 |
| Water and Liq.Chem. Resistance (28 days/23 °C) | Strength | Strength | - | EN 1847 |
| Hail Resistance | ≥17 | ≥20 | m/s | EN 13583 |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE |
|---|---|---|---|
| 1,2 - 1,5 - 1,8 - 2,0 | 1,1 - 1,6 - 2 | 20 or 500 jumbo roller | dry, in original packaging |

# Multiplan GGV

## UV Strength, Reinforced, Geotextile Felt Laminated PVC Roof Membranes

Soft PVC water membranes that are geo textile felt laminated, welded with hot air are resistant to atmospheric conditions and solar rays, polyester reinforced.

### Areas of Usage

- Light metallic roofs,
- Heat insulated and non-insulated cement roofs,
- Sky or different geometric shaped cement or steel roofs,
- Stream insulations and parapets,
- Panel production.

### Advantage

- Suitable to EN 13956 Standards,
- Polyester reinforced and geo textile felt laminated,
- Laminated layer, resistant to every kind of atmospheric conditions, solar rays and plant roots,
- Easy and qualified welding possibility,
- Rapid and economic application, because of largely manufactured roller sizes,
- Resistance to dissolving and rottenness,
- Free laying ability at cement and especially steel roofs with mechanical fixing,
- Excellent sticking in virtue of geotextile mate lamination,
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them,
- Flexibility, high dimensional stability and tear resistance,
- Vapor-permeable,
- Recyclable, nature friendly material.

| SPECIALITY | NECESS / Min. VALUE | RESULT | UNIT | TEST METHOD |
|---|---|---|---|---|
| Visible Defects | Flawless | Flawless | - | EN 1850-2 |
| Waterproof | ≥ 400 | ≥ 400 | kPa | EN 1928 (B) |
| Outer Fire Resistance | Broof (t1) | Uygun | - | EN 13501-5 |
| Impact to Fire | E Sınıfı | E Sınıfı | - | Classification EN 13501-1 |
| Joint Place Peeling Resistance | ≥ 200 | ≥ 200 | N/50 mm | EN 12316-2 |
| Joint Slipping Resistance | ≥ 600 | ≥ 600 | N/50 mm | EN 12317-2 |
| Tensile Resistance | ≥ 800 | ≥ 1100 | N/50 mm | EN 12311-2 |
| Breaking Lengthness | ≥ 15 | ≥ 100 | % | EN 12311-2 |
| Impact Strength | ≥ 400 | ≥ 800 | mm | EN 12691 (A) |
| Static Load Strength | ≥ 20 | ≥ 20 | Kg | EN 12730 (B) |
| Breaking Resistance | ≥ 200 | ≥ 350 | N | EN 12310-2 |
| Plant Root Resistance | Strength | Strength | - | EN 13948 |
| Dimensional Stability | ≤ 1 | ≤ 0.5 | % | EN 1107-2 |
| Flexibility at Cold | ≤ -25 | ≤ -25 | °C | EN 495-5 |
| UV Resistance (1000 s) | Strength | Strength | - | EN 1297 |
| Water and Liq.Chem. Resistance (28 day/23 °C) | Strength | Strength | - | EN 1847 |
| Hail Resistance | ≥17 | ≥17 | m/s | EN 13583 |
| Water Vapour Permeability Assignation | 25000±7500 | 25000±7500 | μ | EN 1931 |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE |
|---|---|---|---|
| 1.2 | 1.10 - 1.80 | 20 or 500 jumbo roller | dry, in original packaging |

# Multiplan TPO-V

## UV Strength, Reinforced Thermoplastic Polyolephine Based Roof Membrane

TPO water insulation membranes that are geo textile mate laminated, polyester reinforced, welded with hot air are resistant to atmospheric conditions and solar rays,.

### Areas of Usage

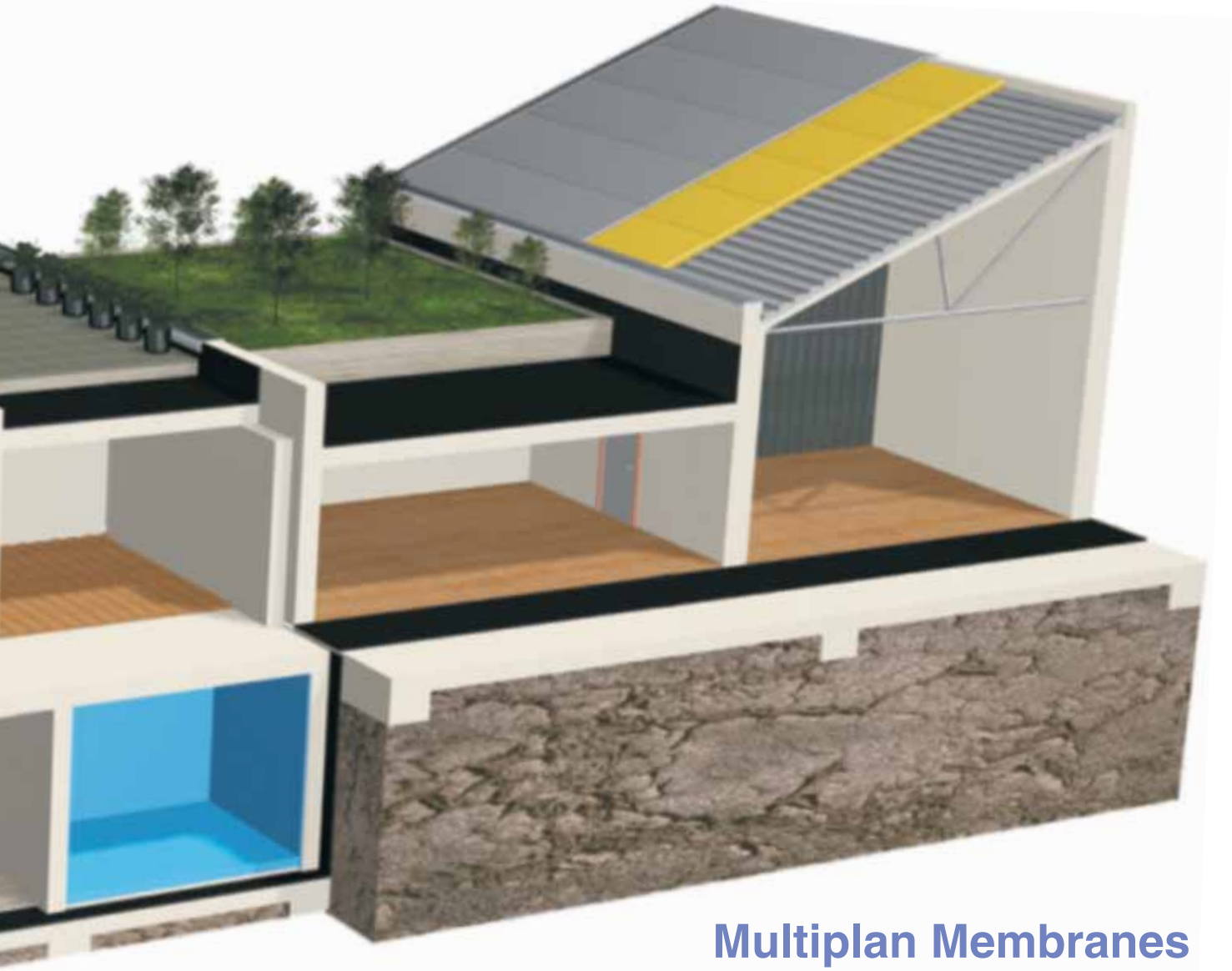
- Light metallic roofs,
- Heat insulated and non-insulated cement roofs,
- Sky or different geometric shaped cement or steel roofs,
- Stream insulations and parapets,
- Panel production.

### Advantage

- Suitable to EN 13956 Standards,
- Polyester reinforced and geo textile felt laminated,
- Laminated layer, resistant to every kind of atmospheric conditions, solar rays and plant roots,
- Easy and qualified welding possibility,
- Rapid and economic application, because of largely manufactured roller sizes,
- Resistance to dissolving and rottenness,
- Free laying ability at cement and especially steel roofs with mechanical fixing,
- Excellent sticking in virtue of geotextile mate lamination,
- It reduces the energy consumption of the buildings, because of it's high reflectance specialty,
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them,
- Flexibility, high dimensional stability and tear resistance,
- Recyclable, nature friendly material,
- Vapor-permeable, Matching with Bitumen.

| SPECIALITY | NECESS / Min. VALUE | RESULT | UNIT | TEST METHOD |
|---|---|---|---|---|
| Visible Defects | Flawless | Flawless | - | EN 1850-2 |
| Waterproof | Nonpermeable | Nonpermeable | - | EN 1928 (B) |
| Outer Fire Performance | Broof (t1) | Applicable | - | EN 13501-5 |
| Impact to Fire | E Class | E Class | - | Classification EN 13501-1 |
| Joint Place Peeling Resistance | ≥ 200 | ≥ 300 | N/50 mm | EN 12316-2 |
| Joint Slipping Resistance | ≥ 600 | ≥ 800 | N/50 mm | EN 12317-2 |
| Tensile Strength | ≥ 800 | ≥ 1100 | N/50 mm | EN 12311-2 |
| Breaking Resistance | ≥ 15 | ≥ 20 | % | EN 12311-2 |
| Impact Strength Static | ≥ 400 | ≥ 700 | mm | EN 12691 (A) |
| Load Strength Tear | ≥ 20 | ≥ 20 | Kg | EN 12730 (B) |
| Resistance | ≥ 180 | ≥ 300 | N | EN 12310-2 |
| Plant Root Resistance | Strength | Strength | - | EN 13948 |
| Dimensional Stability | ≤ 1 | ≤ 1 | % | EN 1107-2 |
| Flexibility at Cold | ≤ -30 | ≤ -30 | °C | EN 495-5 |
| UV Resistance (1000 s) | Strength | Strength | - | EN 1297 |
| Water and Liq. Chem. Resistance (28 day/23 °C) | Strength | Strength | - | EN 1847 |
| Hail Resistance | ≥17 | ≥20 | m/s | EN 13583 |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE |
|---|---|---|---|
| 1,2 - 1,5 - 1,8 - 2,0 | 1,10 - 1,60 - 2 | 20 or 500 jumbo roller | dry, in original packaging |



## Areas of Usage

Reinforced concrete terrace roofs
Light metalic roofs
Garden terraces
Autopark terraces
Curtain walls
Layings
Wet areas
Swimming Pools
Small lakes and ornamental pool
Drinking water tanks
Tunnels

## Multiplan Membranes

Multiplan FG
Multiplan TPO
Multiplan GGV
Multiplan TPO-V
Multiplan BA
Multiplan BA-T
Multiplan T
Multiplan TG
Multiplan MAVİSU

# Multiplan BA

## Homogenous PVC Water Insulation Membranes

Multiplan BA is a soft PVC water insulation membranes that are with UV non-resistance, non-reinforced, welded with hot air, may be used at the foundation bundling and in the covered water insulation details.

### Areas of Usage

- Every kind of covered, ballasted (shingle, soil, screed, ceramic etc.) roofs
- Every kind of detail, protected from UV, covered places (terraces and balconies)
- Foundation curtain applications
- Garden terraces

### Advantage

- Suitable to EN 13967 Standards,
- Homogenous,
- Resistant to plant roots.
- Easy and qualified welding possibility,
- Rapid and economic application, because of largely manufactured roller sizes,
- Resistance to dissolving and rottenness,
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them,
- Flexibility, high dimensional stability and tear resistance
- Vapor-permeable,
- Recyclable, nature friendly material.

| SPECIALITY | NECESS / Min. VALUE | RESULT | UNIT | TEST METHOD |
|---|---|---|---|---|
| Waterproof | Nonpermeable | Nonpermeable | - | EN 1928 (B) |
| Static Load Strength | >_ 20 | ≥ 20 | Kg | EN 12730 (B) |
| Tensile Strength | >_ 15 | ≥ 17 | N/mm² | EN 12311-2 |
| Breaking Elongation | >_ 250 | ≥ 300 | % | EN 12311-2 |
| Waterproof After Ageing | Nonpermeable | Nonpermeable | - | EN 1296 VE EN 1928 (A) |
| Impact Strength | >_ 450 | ≥ 900 | mm | EN 12691 (A) |
| Tear Strength (With Nail) | >_ 300 | ≥ 300 | N | EN 12310-1 |
| Impact to Fire | E Class | E Class | - | Classification EN 13501-1 |
| Joint Strength | >_ 600 | ≥ 750 | N/50mm | EN 12317-2 |
| Vapor Transmittance | 25500+_7500 | 25500±7500 | μ | EN 1931 |
| Joint Place Peeling Resistance | <_ 150 | ≥ 150 | N/50mm | EN 12316-2 |
| Dimensional Stability | <_ 2 | ≤ 2 | % | EN 1107-2 |
| Flexibility at Cold | <_ -25 | ≤ -25 | °C | EN 495-5 |
| Visible Defects | Flawless | Flawless | - | EN 1850-2 |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE | COLOR |
|---|---|---|---|---|
| 1,2 - 1,5 - 1,8 - 2,0 | 1,10 - 1,45 | 15 - 20 | dry, in original packaging | Antrasit |

**FOUNDATION, CURTAIN and TERRACE GROUP**

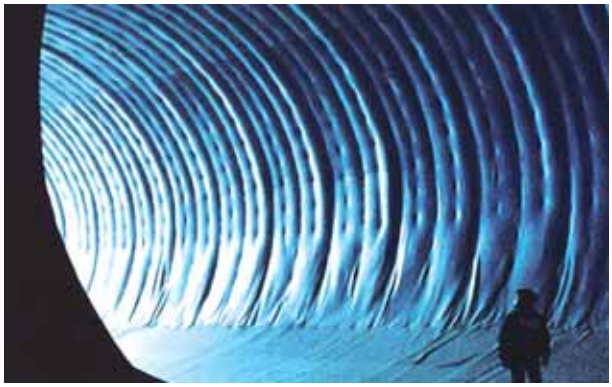
# Multiplan BA-T

## Signal Layer Geomembrane

Light colored signal layer flexible, made of polyvinyl chloride (PVC-P) geomembrane.

### Areas of Usage

- Tunnel applications,
- Storage and protection systems,
- It is applicable for underground buildings.



### Advantage

- Suitable to EN 13967 Standards,
- Homogenous,
- Resistant to plant roots,
- Easy and qualified welding possibility,
- Rapid and economic application, because of largely manufactured roller sizes
- Resistance to dissolving and rottenness,
- It supports the environment illumination and damage assessment, because of being light reflections on its surface
- High perforation resistance, limited UV resistance.
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them,
- Flexibility, high dimensional stability and tear resistance,
- Vapor-permeable,
- Recyclable, nature friendly material.

| SPECIALITY | NECESS / Min. VALUE | RESULT | UNIT | TEST METHOD |
|---|---|---|---|---|
| Waterproof | Nonpermeable | Nonpermeable | - | EN 1928 (B) |
| Static Load Strength | ≥ 20 | ≥ 20 | Kg | EN 12730 (B) |
| Tensile Strength | ≥ 15 | ≥ 17 | N/mm² | EN 12311-2 |
| Breaking Elongation | ≥ 250 | ≥ 300 | % | EN 12311-2 |
| Waterproof after Ageing | Nonpermeable | Nonpermeable | - | EN 1296 VE EN 1928 (A) |
| Impact Strength | ≥ 450 | ≥ 900 | mm | EN 12691 (A) |
| Tear Strength (With Nail) | ≥ 300 | ≥ 300 | N | EN 12310-1 |
| Impact to Fire | E Class | E Class | - | Classification EN 13501-1 |
| Joint Strength | ≥ 600 | ≥ 750 | N/50mm | EN 12317-2 |
| Vapor Transmittance | 25500±7500 | 25500±7500 | μ | EN 1931 |
| Joint Place Peeling Resistance | ≤ 150 | ≥ 150 | N/50mm | EN 12316-2 |
| Dimensional Stability | ≤ 2 | ≤ 2 | % | EN 1107-2 |
| Flexibility at Cold | ≤ -25 | ≤ -25 | °C | EN 495-5 |
| Visible Defects | Flawless | Flawless | - | EN 1850-2 |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE | COLOR |
|---|---|---|---|---|
| 1,2 - 1,5 - 1,8 - 2,0 | 1,10 - 1,45 | 15 - 20 | dry, in original packaging | Antrasit |

# Multiplan T & TG

## Chemical Strength Artificial Lake and Small Lake Membrane

Multiplan T series are used for the insulation of decorative lakes, fish lakes and garden lakes. It is manufactured as resistant to sunrays, atmospheric conditions, plant roots and chemicals as unreinforced (T series) and polyester reinforced (TG series).

### Areas of Usage

- Artificial Lakes and Small Lakes,
- Feeding channel,
- Dams and water buildings.

### Advantage

- Suitable to EN 13967 Standards,
- Homogeneous or Polyester reinforced,
- Resistant to plant roots,
- Easy and qualified welding possibility,
- Rapid and economic application, thanks to largely manufactured roller sizes,
- Resistance to dissolving and rotting,
- Resistance to atmospheric conditions, solar rays, and the chemicals, existing at the soil and the underground waters, Anti micro bacteria,
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them,
- Flexibility, high dimensional stability and tear resistance,
- Vapor-permeable,
- Recyclable, nature friendly material.

| PHYSICIAL SPECIALITIES MULTİPLAN PRODUCED DUE TO TG DIN 16734 NORMS | | |
|---|---|---|
| UV Resistance | Yes | |
| Resistance to plant roots | High | |
| Perforation resistance | 142 N/mm | |
| Delaminating Strength | Longitud. ≥ 1320 N | Transvers. ≥ 1298 N |
| Tensile Strength | Longitud .% ≥ 17,2 | Transvers. ≥ 16,8 |
| Breaking Elongation | Longitud .% ≥ -0,55 | Transvers. ≥ -0.1 |
| Dimensional deformation at high temp (6 day, 80 °C) | No bubbles | |
| Status after Heat Storing | No cracking or breaking | |
| Flexibility at Cold | | |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE | COLOR |
|---|---|---|---|---|
| 1,2 - 1,5 - 1,8 - 2,0* - 2,4* | 1,65 - 2,00 | 15 - 20 | dry, in original packaging | Olive green, sand color ** |

* Produced specially according to the order.

** Produced in special color according to the order.

# Multiplan MAVİSU

## Drinking Water Tank Insulation System

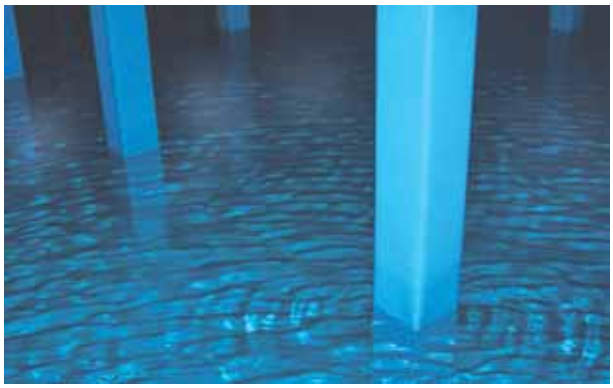
It is used as the last layer, on the insulation of drinking water and service water tanks that has Suitability certificate to contacting drinking water, UV non resistant and water insulation system.


### Areas of Usage

- It is used in any kinds of old and new drinking and usage water tanks in buildings and outdoors.

### Advantage

- Suitable to EN 13967 Standards,
- Homogenous,
- Resistant to all chemicals in drinking and usage waters,
- Never changes the water quality (odor, color, etc.), no physiological harm,
- Sterile, anti micro bacteria and no micro organism resides on its layer,
- Easy and qualified welding possibility,
- Rapid and economic application, thanks to largely manufactured roller sizes,
- No moss production on it, no dissolving and rotting,
- Fulfills its insulation duty in case of cracks or breaks because of earthquake, etc.,
- The high qualification, following by independent test laboratories and accredited production laboratories as strict followers of them,
- Flexibility, high dimensional stability and tear resistance,
- Recyclable, nature friendly material,
- Vapor-permeable.



| ÖZELLİKLER | GEREKLİ / Min. DEĞER | SONUÇ | BİRİM | TEST METODU |
|---|---|---|---|---|
| Waterproof | Nonpermeable | Nonpermeable | - | EN 1928 (B) |
| Static Load Strength | ≥ 20 | ≥ 20 | Kg | EN 12730 (B) |
| Tensile Strength | ≥ 15 | ≥ 17 | N/mm² | EN 12311-2 |
| Breaking Elongation | ≥ %250 | ≥ 300 | % | EN 12311-2 |
| Waterproof after Ageing | Nonpermeable | Nonpermeable | - | EN 1296 ve EN 1928 (A) |
| Impact Strength | ≥ 450 | ≥ 1000 | mm | EN 12691 (A) |
| Tear Strength (With Nail) | ≥ 300 | ≥ 300 | N | EN 12310-1 |
| Joint Strength | ≥ 600 | ≥ 800 | N | EN 12317-2 |
| Visible Defects | Kusursuz | Kusursuz | - | EN 1850-2 |
| Vapor Transmission | 25500±7500 | 25500±7500 | μ | EN 1931 |
| Impact to Fire | E Class | E Class | - | EN 13501-1 |
| Dimensional Stability | ≤ 2 | ≤ 2 | % | EN 1107-2 |
| Flexibility at Cold | ≤ -25 | ≤ -25 | °C | EN 495-5 |

| THICKNESS (mm) | WIDTHS (m) | ROLLER LENGTH (m) | STORAGE | COLOR |
|---|---|---|---|---|
| 1,5 - 2,0 | 1,45 | 15 - 20 | dry, in original packaging | Blue |

# Multiplan Accessories

Rain Outlays (ø50 - ø70 - ø100)

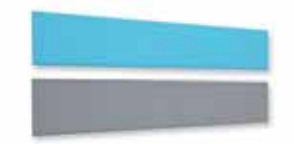
Rain Side Outlays (ø50 - ø70 - ø100)

Siphonic System Elements

Piping and Antenna Output

Leaf Holder

Inner, Outer corner Elements



PVC and TPO Laminated Lath

# Multiplan Certifications






## Important Warnings

Bitume, oil and the solvents can be harmful for the membrane.  It should not in contact with bitumed and hard polystyrene foam made heat resistance materials. When required, a selector layer should be used in between.

MULTİPLAN

NUHGROUP


**MULTİPLAN YALITIM SİSTEMLERİ A.Ş.**

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