

**durfoam**

Insulation Solution Company

**INSULATION SOLUTIONS OF THE FUTURE**



# durfoam

Insulation Solution Company

## INSULATION SOLUTIONS OF THE FUTURE



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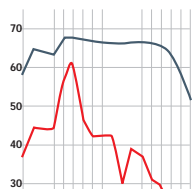
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*"We are running to the future.  
When we arrive there, it is all depend on us to make the future  
more delightful and much better."  
Ali DURMAZ*

## An old tradition, a new future...

Durfoam: the product of a well-rooted business tradition and a global sense of quality...

Durfoam is an affiliate of Durmazlar Holding, which started create values in 1956 and, today, generates employment thanks to its exports to 105 countries at the four corner of the world and its investments made in the real estate industry...

Founded by Ali Durmaz and being a driving force of the Holding, Durmazlar Makine manufactures metal sheet cutting and processing machines with its staff of 1.000 persons at three different plants established on a total area of 150.000 square meters. In terms of production volume, it is the world leader thanks to its sellers on five continents.

With the innovations it introduced to the real estate industry and its dynamic structure, Durin GYO is a candidate for being one of the leading companies of the industry. The 5-star Hilton Convention Center & Spa and the 3-star Hampton by Hilton, the first and only "double branded" hotel project of the world is contracted by Durin GYO.



Durmazlar Machinery  
Durfom Insulation  
Durin Real Estate  
Paratoner Turizm  
Duray Industry





## We dream of a better future...

All of us do know well.

Today, most of the energy used in homes, offices, factories and schools is squandered away.

Specifically, the most of the energy used for air conditioning leaks away due to the fact that many of the buildings have no heat insulation. The refrigerators with poor insulation consume more energy or the poorly insulated cars burn more fuel.

Therefore, an important mission falls to the human: to prevent the energy used from wasted away!

For a better future, Durfoam makes productions to assist the conscious investors, smart constructors, farsighted engineers, sensitive and environmentally-conscious people, all of which avoid throwing their money and resources away.

## We produce for a more comfortable life...

Durfoam is the biggest investment having been ever made in the polyethylene insulation materials. It offers the insulations solutions of the future with the first physical cross-linked polyethylene irradiation unit and the first chemical cross-linked polyethylene vertical furnace.

On a closed area of 24.000 square meters in Akcalar Industrial Estate, Bursa, it uses the tomorrow's technology according to ISO 9001, ISO 14001 and TÜV Australia Hellas quality standards.

Durfoam produces without polluting the world and improving the standards of living.



**CONSTRUCTION INDUSTRY**





**Warmer homes, warmer moments...**

With its product group of chemically cross-linked and noncross-linked polyethylene product groups, Durfoam manufactures the best insulation products and improves your standards of living.

# Durfoam Construction Insulation Materials

Every year, Turkey imports energy amount to 15 billion dollars for only heating purposes. Uninsulated flats account for a waste of energy of 7.5 billion dollars. Unqualified products cause environmental pollution and the more comfortable living plans of the families are hindered by the gas bills.

Around the world, the standards for construction insulation materials are changing. The world is using condensed, long-lasting, high-performance polyethylene materials, which do not cause environmental pollution, anymore.

## Underscreed Insulation

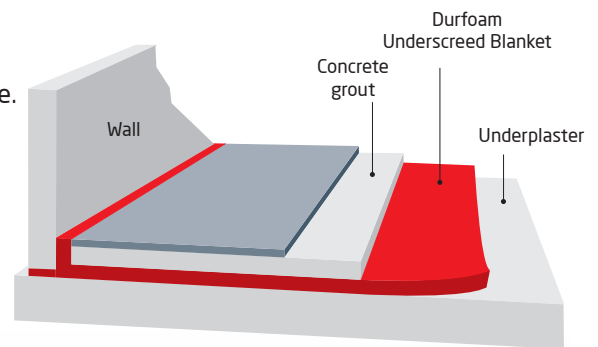
Durfoam Underscreed Insulation Materials are cross-linked polyethylene products which are easily laid on the concrete floor after the electricity and water installations have been completed and then covered by screed to ensure a high performance sound and heat insulation.

## Advantages

- Ensures perfect underscreed sound and heat insulation.
- Provide high strength against impacts and cause no deflections.
- It is easily and rapidly applied thanks to its flexibility and lightness.
- Ensures that the mechanical and acoustic character values remain stable.
- Environmental-friendly and does not contain HCFC.
- Is antibacterial and nonflammable.

## Product Range

- Physically and chemically cross-linked polyethylene
- Customized thickness from 3mm to 10 mm
- Customized density from 20 kg/m<sup>3</sup> to 240 kg/m<sup>3</sup>
- B1, B2 and F/R properties
- Folio, film, band or fabric lamination



# Floorlayer Under Parquet Materials

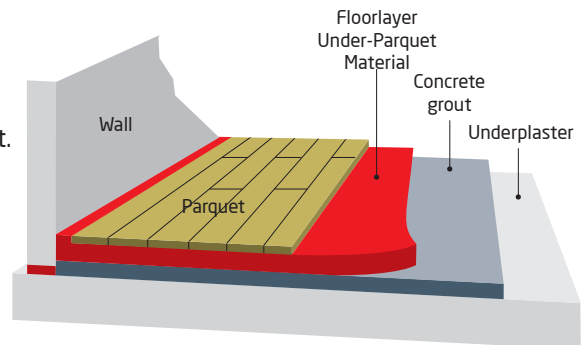
## Maximum Under-Parquet Insulation Against Heat, Sound and Moisture

The standards for under-parquet insulation materials are changing. The world prefers long-lasting, high-performance polyethylene materials, which can be produced at the desired density and thickness and ensures the maximum performance, instead of the blankets which cannot achieve heat and sound insulation.

Durfoam ensures that the heat stays inside your house thanks to the world's preferred under-parquet materials.

## The Advantages of Floorlayer

- Made of cross-linked polyethylene.
- Is the guarantee of the heat inside your flat as well as your parquet.
- Saves energy by maintaining the room temperature.
- Is flexible, uncrushable, unbreakable and is easily laid.
- No bacterial growth, no corruption.
- Contains no HCFC and fit for health.
- 100% recyclable.
- Nonflammable.



Properties		Floorlayer		Floorlayer Super Metalized	
		3mm	5mm	3mm	5mm
Heat Conductivity	0.0367W/mK	+	+	+	+
Sound Insulation	22Db	+	+	+	+
Water Permeability	None	+	+	+	+
Moisture Permeability	None	+	+	+	+
Toxic Gas	None	+	+	+	+
Density	30Kg/m3	+	+	+	+
Recycling	100%	+	+	+	+
Water Absorption	None	+	+	+	+
Heat Reflection Property*		-	-	+	+

\*With its metalized film coated surface, super metalized saves energy by reflecting the heat inside the room.

# Durfoam Construction Insulation Materials

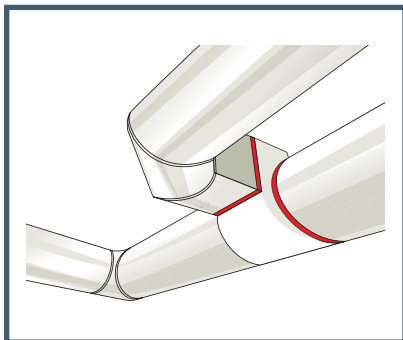
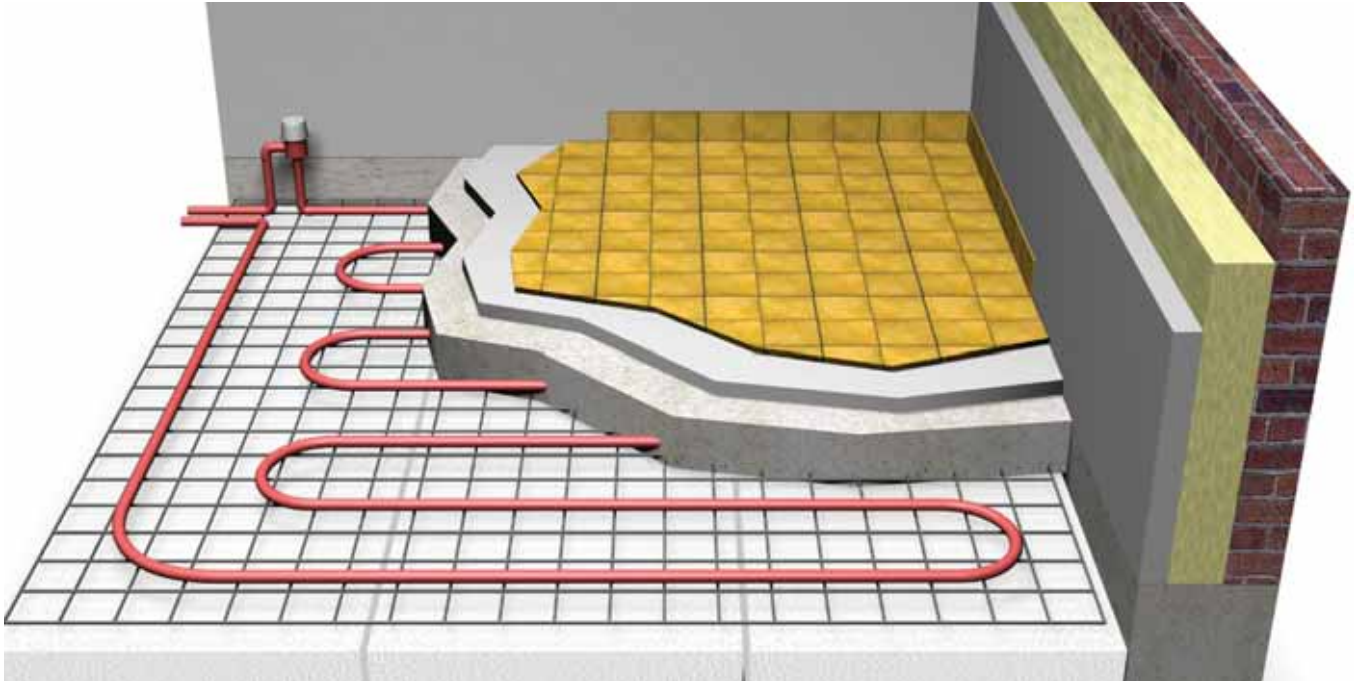
Durfoam chemically cross-linked and noncross-linked polyethylene products ensures your house, office or factory to waste less energy and offers a healthier life to you, your family and your employees.

## Advantages

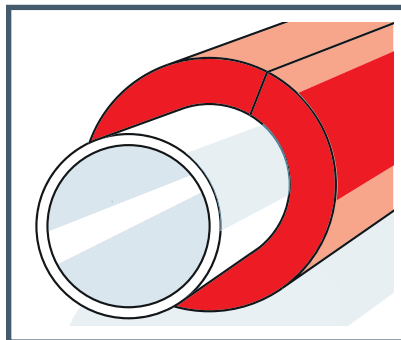
- It has a closed pore structure.
- Ensures heat and sound insulation.
- Provides a great strength against impacts.
- Recovers after impacts; no sagging; no dusting.
- It can be thermoformed.
- Is not affected by construction chemicals.
- Has moisture barrier.
- Resistant to the abrasions which may occur over time.
- Suitable for a wide range of temperature.
- No size changes due to heat during processing and use.
- Easy and rapid to apply thanks to its high flexibility and lightness.
- Does not contain HCFC and is Environment-friendly and nonflammable.



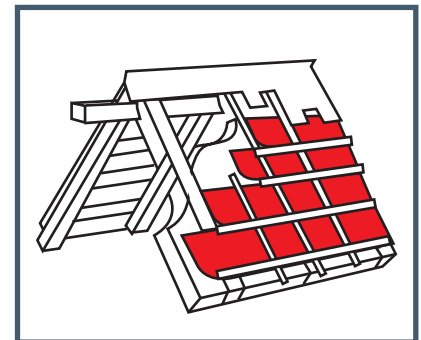
# Durfoam Costruction Insulation Materials



Ventilation channels



Installations



Roofing applications

## Areas of use

- Roof insulation
- Sound and heat insulation between walls
- Air conditioner internal components
- Refrigerator vehicles
- Chilling rooms
- Suspension roofs
- Movie sound and heat insulation
- Sound and vibration absorbers
- Industrial impact absorbing packaging

## Product Range

- Chemically cross-linked and noncross-linked polyethylene
- Customized thickness from 1 mm to 100 mm
- Customized density from 20kg/m<sup>3</sup> to 240kg/m<sup>3</sup>
- B1, B2 and F/R properties
- Folio, film, band or fabric lamination

# PACKAGING INDUSTRY





## More protective packaging, more comfortable moments...

With its chemical cross-linked and noncross-linked polyethylene product groups, Durfoam manufactures the most protective insulation products for your packaging solutions and all your articles are safely transported.

# Durfoam Packaging Insulation Materials

Through Durfoam's packaging sheets made from chemical cross-linked and noncross-linked polyethylene, the glass products arrive safely at your home, your furniture, kitchen and bathroom equipments do not scratch, your electronic appliances are not damaged. Applications is much more practical due to the double-faced tapes made of physically cross-linked polyethylene.

## Advantages

Durfoam packaging materials has a flexible structure.

They ensure a safe transportation thanks to its full-protective packaging.

Easy to use due to its lightness.

They can be easily cut and formed in needed quantity.

With their closed pore structure, they are highly resistant to heat, water and chemicals.

Its nonflammability ensures a safe transportation for your articles.

Its high impact resistance avoids the products to be affected by the external factors.

They can be re-used. Show no crushing or sagging.

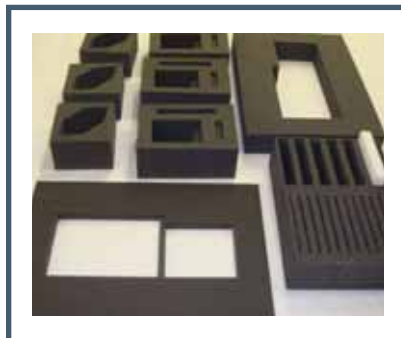
They can be used for multiple purposes by various industries.

They are 100% recyclable and hygienic.

Do not contain HCFC. Nonflammable.



# Durfoam Packaging Insulation Materials



## Areas of Use

Durfoam packaging materials are used especially in furniture, white goods, electronic, steel-metal, lighting, ceramic and kitchen industries.

## Product Range

Physically and chemically cross-linked polyethylene  
Customized thickness from 0,5mm to 100 mm  
Customized density from 20 kg/m<sup>3</sup> to 240 kg/m<sup>3</sup>  
Single-faced or double-faced folio, film, band or fabric lamination  
B1, B2 and F/R properties

# AUTOMOTIVE INDUSTRY





**Safer cars, more enjoyable travels...**

With its chemical cross-linked and noncross-linked polyethylene product groups, Durfoam manufactures the safest insulation products for your car and cars become more sensitive to environment-friendly.

# Durfoam Automotive Insulation Materials

Durfoam, with its insulation materials made of chemical cross-linked and noncross-linked polyethylene, ensures your car to consume less fuel and cars become more sensitive to environment-friendly. It is safer to travel by the cars equipped with the first IXPE / physically cross-linked insulation materials of Turkey.

## Advantages

Durfoam automotive insulation materials has closed pore structure.

They ensure heat, sound and impact insulation.

Resistant to the abrasions which may occur over time. Recover itself after an impact; no sagging and dusting.

Easy to apply due to their high flexibility and lightness.

They can be thermoformed and have moisture barriers.

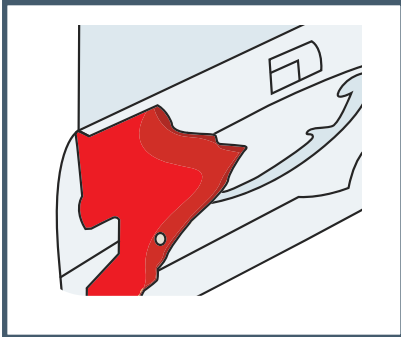
They are not affected by construction chemicals.

Suitable for a wide range of temperature. No size changes due to heat.

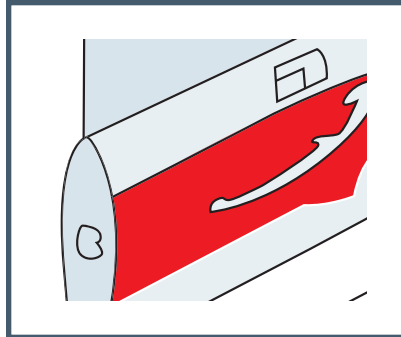
They are environment-friendly and nonflammable and contain no HCFC.



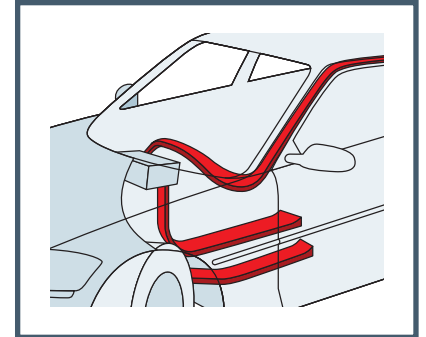
# Durfoam Automotive Insulation Materials



Door applications



Door applications



Ventilation channels

## Areas of Use

- Inside-the-door cavity gaskets
- Dashboards
- Sun Visors
- Flooring
- Rear trunk
- Rear trunk floor cover
- Headlight gaskets
- Ventilation channels

## Product Range

- Physically and chemically cross-linked polyethylene
- Customized thickness from 1mm to 100 mm
- Customized density from 20 kg/m<sup>3</sup> to 240 kg/m<sup>3</sup>
- B1, B2 and F/R properties
- Folio, film, band or fabric lamination

# FOOTWEAR & BAG INDUSTRY





**More durable accessories, more comfortable moments...**

With its chemical cross-linked and noncross-linked polyethylene product groups, Durfoam manufactures the most protective insulation products for your footwear and bags and perfects your smartness.

# Durfoam Footwear & Bag Insulation Materials

Durfoam's insulation materials made of chemical cross-linked and noncross-linked polyethylene, improve the durability of your footwear and bags which are indispensable accessories of your daily life. They give you a comfortable move thanks to the light-weighted and flexible accessories. .

## Advantages

Durfoam footwear & bag insulation materials are light-weighted, comfortable and flexible.

Show high resistance to shock impacts.

Can recover themselves after impacts.

They can be thermoformed and have moisture barriers.

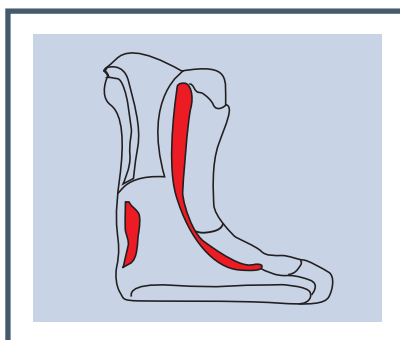
Are antibacterial and do not cause odours.

They are washable and environment-friendly.

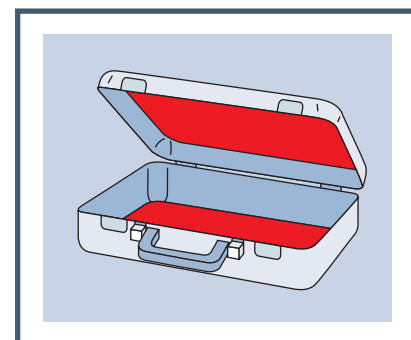
They are nonflammable and HCFC-free.



# Durfoam Footwear & Bag Insulation Materials



Footwear applications



Bag applications

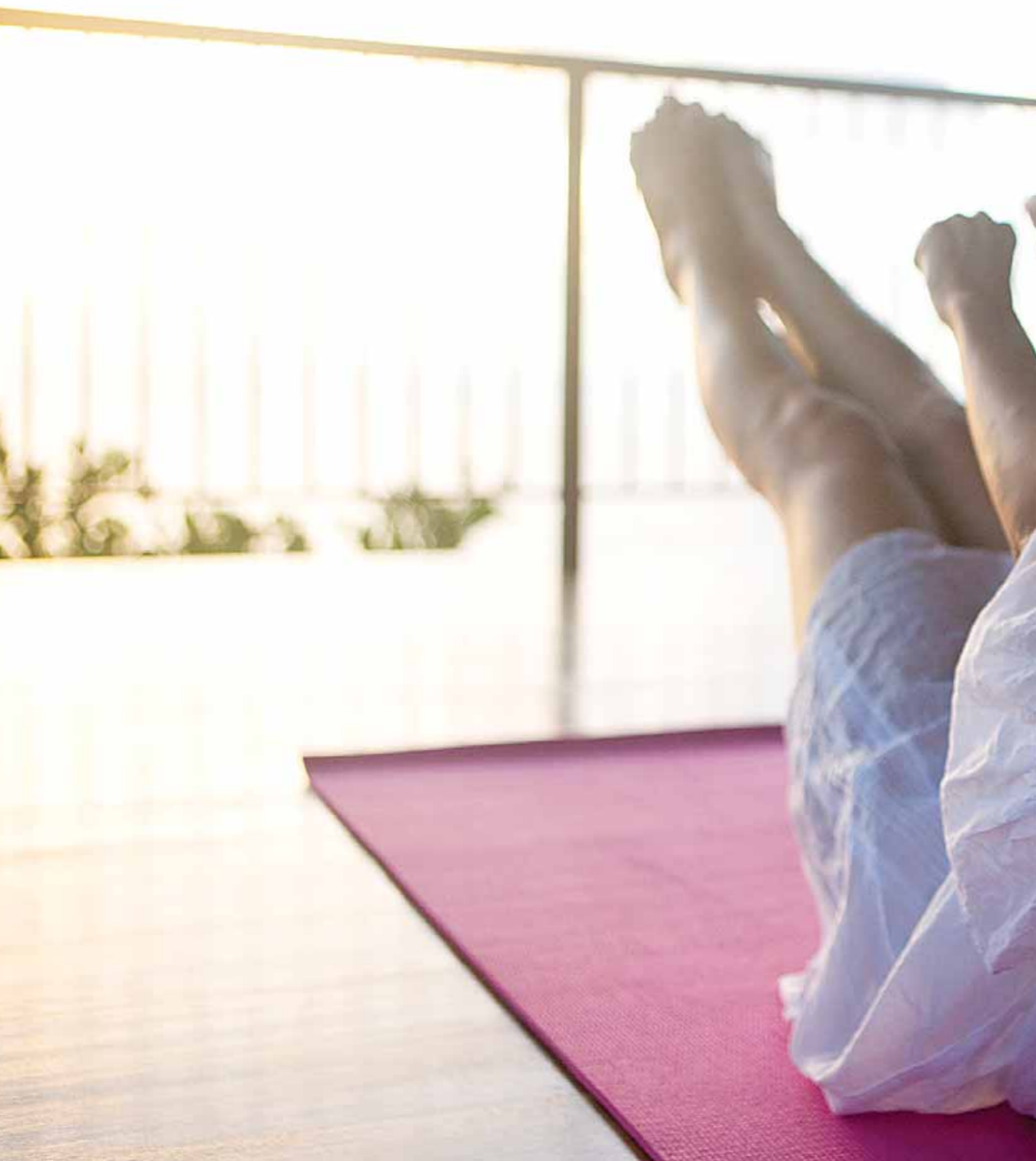
## Areas of Use

- Backpacks
- School bags and briefcases
- Notebook cases
- Suitcases
- Leather and artificial leather laminations
- Cell phone cases
- Various footwear and skiing boots
- Sole, leg and flap production

## Product Range

- Chemically cross-linked and non-cross linked polyethylene
- Customized thickness from 1mm to 100 mm
- Customized density from 20 kg/m<sup>3</sup> to 240 kg/m<sup>3</sup>
- B1, B2 and F/R properties
- Artificial leather, folio, film, band or fabric lamination

# SPORTS INDUSTRY





**More energetic sports equipments, more fun moments...**

Durfoam, with its product groups of physically, chemically cross-linked and noncross-linked polyethylene manufactures the most sensitive insulation for your sports equipment and adds even more pleasure to the moment.

# Durfoam Sports Insulation Materials

Durfoam insulation products made of physically and chemically cross-linked and noncross-linked polyethylene materials are used in a wide range from Far East martial arts to sailing. They are strike and humidity resistant. They have a high performance ratio with its protection and light properties, which enable freedom of activation in sports.

## Advantages

Durfoam sports insulation products ensures perfect heat and humidity insulation

Closed pores, high resistant against shock impacts

Light, flexible and enduring

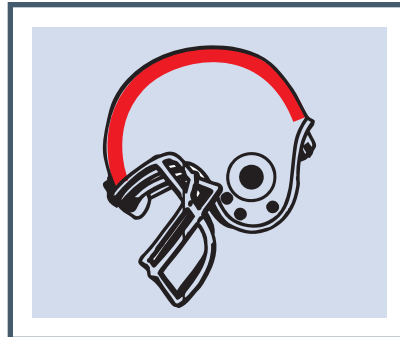
Antibacterial and hygienic

Washable, environment-friendly

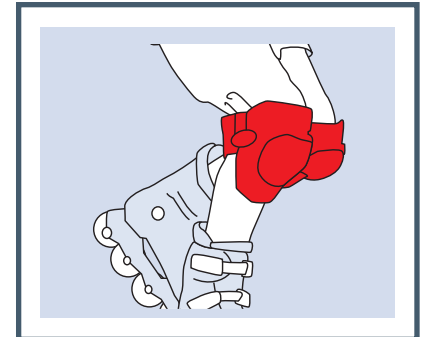
Contains no HCFC, nonflammable



# Durfoam Sports Insulation Materials



Helmet Applications



Knee Pad Applications

## Areas of Use

Jumping mat  
Life jackets  
Protective filling material for the inside of the helmet  
Knee pad, elbow pad  
Camping tent  
Football field carpets  
Yacht, boat and sailing equipment

## Product Range

Physically, chemically cross-linked and noncross-linked polyethylene  
Customized thickness range from 1mm to 100 mm  
Customized density range from 20kg/m<sup>3</sup> to 240kg/m<sup>3</sup>  
B1, B2, F/R properties  
Folio, film, band and fabric lamination

**HEALTHCARE INDUSTRY**





**More efficient health products, healthier moments...**

Durfoam, with its product groups of physically and chemically cross-linked polyethylene manufactures the most secure insulation products for your health; hence the recovery time gets shorter.

# Durfoam Healthcare Insulation Materials

Healthcare equipment made of Durfoam's physically and chemically cross-linked polyethylene is user-friendly as they are light and flexible. They have a high strike resistance that enables protection against external factors.

## Advantages

Durfoam healthcare materials are light weighted, comfortable and flexible.

It is highly resistant against shock strikes.

It recovers itself after strike.

No partial contraction.

It can be thermoformed and has humidity barrier

Is antibacterial and cause no odours.

Washable, environmental-friendly, contains no HCFC.

Nonflammable



# Durfoam Healthcare Insulation Materials



## Area of Use

Neck rest  
Backrest  
Knee pad  
Laboratory materials  
Hospital and hotel slippers

## Product Range

Physically, chemically cross-linked and noncross-linked polyethylene  
Customized thickness range from 1mm to 100 mm  
Customized density range from 20kg/m<sup>3</sup> to 240kg/m<sup>3</sup>  
Single-face or double-faced folio, film, band and fabric lamination  
B1, B2, F/R properties

**DEFENSE INDUSTRY**





**Stronger defense articles, more secure moments...**

Durfoam, with its product groups of physically, chemically cross-linked and noncross-linked polyethylene manufactures the state-of-the-art and the most enduring insulation products for defense industry and enhances the security power.

# Durfoam Defense Insulation Materials

Insulation materials made of Durfoam's physically and chemically cross-linked and noncross-linked polyethylene products enhance protection and resistance in the defense industry. Light and flexible materials enable ease of conveyance.

## Advantages

Durfoam defense insulation products are high-strike resistant.

It recovers itself after strike with no partial contraction.

Flexible and light-weighted.

Heat moldable and humidity barrier

No bacteria or odour.

Washable, environmental-friendly

Contains no HCFC, nonflammable



# Durfoam Defense Insulation Materials



## Areas of Use

Life jackets  
Military mats  
Military floor pad  
Camping tent  
Sleeping bag  
Gun and ammunition packages

## Product Range

Physical, chemical, cross-linked and noncross-linked polyethylene  
Customized thickness range from 1mm to 100 mm  
Customized density range from 20kg/m<sup>3</sup> to 240kg/m<sup>3</sup>  
Single-faced or double-faced folio, film, band and fabric lamination  
B1, B2, F/R properties





## Durfoam Air Bubble

### Lucid Polyethylene Bubble Package

Durfoam Air Bubble enables a safe conveyance for your articles and goods that are made of aluminum, metallized content, film and laminated structure. It protects them against vibes, cracks and breaks, smashes, frictions, point-based shock strikes, dusting and heat.



### Production Properties

Width	Length
1000 mm - 1500 mm	100 m

## Physically Cross-Linked Polyethylene

Following the extrusion of physically cross-linked polyethylene foam through the constituent chemical inflators and linkers, the product is exposed to an electron bombardment. After the electron bombardment application, it expands in kiln-drying process. Hence a foam-like structure is obtained. Following such applications the physical features of the product increase and an extremely closed pore structure with a smooth surface is ensured. Customized options are available in 50m-500m with 33kg/m<sup>3</sup>-200kg/m<sup>3</sup> concentrations and 800mm-1500mm wide and 0.5mm-10mm thickness. Besides, the customers are offered a selective option of cut sheets, rolls and pipes with and without extra laminating to supply demands incoming from different industries.

### Production Sizes

Thickness	Density	Roll - Width	Roll - Length	Colour
1 mm	67-200 kg/m <sup>3</sup>	1000-1500 mm	400 m	Black/White/Grey
2 mm	33-200 kg/m <sup>3</sup>	1000-1500 mm	300 m	Black/White/Grey
3 mm	25-200 kg/m <sup>3</sup>	1000-1500 mm	200 m	Black/White/Grey
5 mm	25-200 kg/m <sup>3</sup>	1000-1500 mm	150 m	Black/White/Grey
6 mm	25-200 kg/m <sup>3</sup>	1000-1500 mm	100 m	Black/White/Grey
8 mm	25-200 kg/m <sup>3</sup>	1000-1500 mm	50 m	Black/White/Grey
10 mm	25-200 kg/m <sup>3</sup>	1000-1500 mm	50 m	Black/White/Grey

## Chemically Cross-Linked Polyethylene Foam

This is a foam-like product, which has been extruded and kiln-dried for expansion through chemical inflators and cross-linkers. Customized options are available in 40m-100m with 25kg/m<sup>3</sup>-220kg/m<sup>3</sup> concentrations and 800mm-2200mm wide and 2.5mm-13mm thickness. Besides, the customers are offered a selective option of cut sheets, rolls and pipes with and without extra laminating to supply demands incoming from different industries.

### XLPE SHEET

#### Technical Properties

Properties	Unit	DURFOAM	DURFOAM	DURFOAM	DURFOAM
Density	kg - m <sup>3</sup>	30	45	90	180
Permanent Crashing	(70kPa-60sec) %	5	5	2	1
Breaking Elongation	%	70	80	140	240
Breaking Strength	(kPa)	200	400	900	1900
Heat Conductivity (-15°C)	W/(mK)	0.035	0.040	0.045	0.060
Water Vapour Permeability	(kg/msPa) E-13	5.4	2.6	2.2	1.4
Application Temperature	°C	-80°C ve -100°C			

#### Production Sizes

Thickness	Density	Roll - Width	Roll - Length	Colour
3 - 15 mm	25-200 kg / m <sup>3</sup>	800-2200 mm	40 - 100 m	All colours

### XLPE PIPE

#### Technical Properties

Properties	Density	Inner Diameter	Colour
6 mm - 7.5 mm	30kg/m <sup>3</sup>	30kg/m <sup>3</sup>	Document
6 mm - 7.5 mm	30kg/m <sup>3</sup>	30kg/m <sup>3</sup>	Document
6 mm - 7.5 mm	30kg/m <sup>3</sup>	30kg/m <sup>3</sup>	Document
6 mm - 7.5 mm	30kg/m <sup>3</sup>	30kg/m <sup>3</sup>	Document
6 mm - 7.5 mm	30kg/m <sup>3</sup>	30kg/m <sup>3</sup>	Document

#### Technical Properties

Properties	Unit	DURFOAM
Density	kg - m <sup>3</sup>	30
Permanent Crashing	(70kPa-60sec)%	5
Breaking Elongation	%	70
Breaking Strength	(kPa)	200
Heat Conductivity (-15°C)	W/(mK)	0.035
Water Vapour Permeability	(kg/msPa) E-13	5.4
Application Temperature	°C	-80°C and -100°C

#### Production Sizes

Pos.	Pipe Type (Inner Diameter)	Pipe Length (in meter)	Number of Pipes in a box	Quantity of Pipes in a box (in meter)
1	1/4"	2	200	400
2	1/2"	2	150	300
3	3/8"	2	150	300
4	5/8"	2	110	220
5	3/4"	2	110	220
6	7/8"	2	110	220
7	11/8"	2	80	160
8	13/8"	2	70	140
9	9mm-ø18mm	2	100	200

## Noncross-Linked Polyethylene Foam

Composed of a noncross link structure, the NPE product has an extrusion-based design upon addition of constituent chemicals and LPG gas. Produced in 50m and 100m rolls, it can also be customized in the width range of 1000mm to 2000mm, in addition to cut sheets, rolls and bags with and without extra laminating to supply demands incoming from different industries.

### NPE SHEET

#### Technical Properties

Properties	DURFOAM
Density	20-40 kg/m <sup>3</sup>
Heat Conductivity Coefficient	0.0487 W/mK
Water Vapour Permeability	mE 2500
Water Absorption Sensitivity	(96 hours) % 0.4
Impact Sound Reduction	23-25 db
Breaking Strength (length)	0.40N/mm <sup>2</sup>
Breaking Strength (width)	0.20N/mm <sup>2</sup>
Breaking Elongation (length)	%80
Breaking Elongation (width)	%68
Application Temperature	-40C and +90C
Impact Sound Reduction	19-22 db

### NPE PIPE

#### Technical Properties

Properties	DURFOAM	Relevant Norm
Density	20-30 kg / m <sup>3</sup>	DIN 53420
Heat Properties	0.040 W/mK	DIN 52613
Application Temperature	(-40C°+105C°)	
Water Vapour Permeability	(*)(*)16,000	DIN 52615
Water Absorption Sensitivity	%0.42 (by volume)	DIN 43495
Impact Sound Reduction	19-22 db	DIN 4109

#### Production Sizes

Thickness	Density	Roll - Width	Roll - Length	Colour
0.5 mm	30-40 kg/m <sup>3</sup>	2000 mm	500 m	White/Grey
1 mm	30-40 kg/m <sup>3</sup>	2000 mm	500 m	White/Grey
2 mm	30-40 kg/m <sup>3</sup>	1500 mm	200 m	White/Grey
3 mm	30-40 kg/m <sup>3</sup>	1500 mm	150 m	White/Grey
5 mm	30-40 kg/m <sup>3</sup>	1500 mm	100 m	White/Grey
6 mm	30-40 kg/m <sup>3</sup>	1500 mm	100 m	White/Grey
8 mm	30-40 kg/m <sup>3</sup>	1000 mm	75 m	White/Grey
10 mm	30-40 kg/m <sup>3</sup>	1000 mm	50 m	White/Grey
15 mm	30-40 kg/m <sup>3</sup>	1000 mm	30 m	White/Grey
20 mm	30-40 kg/m <sup>3</sup>	1000 mm	30 m	White/Grey
30 mm	30-40 kg/m <sup>3</sup>	1000 mm	30 m	White/Grey



# durfoam

[WWW.DURFOAM.COM.TR](http://WWW.DURFOAM.COM.TR)

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