



INSULATE & REDUCE **YOUR** HOUSE ENERGY BILLS BY



40%

LOOK FOR INSULATION GRADE
DIAMOND JUMBOLON STAMP
FOR GENUINE PRODUCT

DIAMOND
Jumbolon-Rolls
INSULATION GRADE



- ✓ VIRTUALLY CUTS HEAT DOWN TO NEARLY ZERO
- ✓ DRAMATICALLY DECREASES ELECTRICITY BILLS - MORE THAN 40%
- ✓ COMPLETELY WATER REPELLENT
- ✓ PERFECTLY ACOUSTIC ABSORBENT

DIAMOND JUMBOLON
Best Insulation Providers



From the makers of **SupremeFoam**

A careful estimate shows that in buildings, more than 50% of energy is consumed for heating and cooling by air-conditioners and heaters. An air-conditioner of 1.5 tons consumes 3 units of electricity per hour, and if a consumer runs an AC for 6 hours a day, it will cost him Rs.3700/- (Approx.), per month. During the long and harsh summers, use of an AC for unlimited hours on a high thermostat shoots up electricity bills to an alarming extent. The climate of our country provides a good setting for energy efficient techniques. Energy efficient design and energy conservation measures in general offer a great possibility for significant savings on energy, which also contributes towards the solution of Pakistan's serious energy problem. Major way of energy saving is to ensure that buildings should be well insulated, which allows occupants to be comfortable with minimum energy consumption.

Insulation

To isolate an object from its surrounding environment is called "Insulation". In other words we can say that "Insulation" is a process to retard transfer of heat between two surfaces and the material used for this purpose is called "Insulation material". For complete insulation of a building, selection of right material gives complete satisfaction and comfort to the occupants. Diamond Jumbolon has to its credit the manufacture of extruded polyethylene foam (world's best insulation) for the first time in Pakistan, with its exceptionally wide range of applications, features and thicknesses. It tremendously reduces heat gain in summers and heat loss in winters that results in amazing reduction in electricity and gas bills.

Due to its excellent field and laboratory tests, Diamond Jumbolon is now widely recommended by Architects, Engineers, HVACR consultants and experts for the insulation of roofs, walls, water proofing, pipes, AC ducts, cold storages, water tanks and sound absorption installations.

Sound insulation & acoustic control is one of Diamond Jumbolon's excellent characteristics. Its cell structure suppresses excessive sounds caused by machinery, heavy engines, pumps, music equipment and loudspeakers etc. Installing Diamond Jumbolon in your house is the fastest and most effective way to reduce energy consumption and harmful effects of water penetration into the building. Diamond Jumbolon is an economical answer to refuge from intense temperature variations. Such houses remain protected from severe climatic effects and remain cool with fan only or with minimum use of air conditioners in Summers and stay warm in Winter season by consuming less energy.

Diamond Jumbolon has to its credit, the manufacture of extruded polyethylene foam (world's best insulation) first time in Pakistan.

In houses, water tanks and pipes are insulated with Diamond Jumbolon to keep water temperature constant, in order to avoid hot water in Summers and cold in Winters.

Analysis of roof temperature and energy saved by using Diamond Jumbolon Insulation Rolls

Time	5AM	6AM	7AM	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM
Temp. above the roof	29.5°	30.5°	32.4°	34.2°	36.1°	38.35°	40.52°	42.8°	44.1°	45.2°	45.4°	45.5°	45.6°
Temp. below the roof without Insulation	26°	27.1°	28°	29.3°	30.73°	32.3°	34.07°	35.9°	37.9°	39.7°	41.35°	42.1°	42.75°
Temp. below the roof with 1" Diamond Jumbolon Insulation	26°	26°	26.33°	26.66°	27.23°	28.01°	28.82°	29.8°	30.9°	32.14°	33.4°	34.61°	35.65°
Temp. below the roof with 2" Diamond Jumbolon Insulation	26°	26°	26°	26.29°	26.67°	27.14°	27.71°	28.39°	29.2°	30.02°	30.93°	31.76°	32.63°

A GOOD INSULATION MATERIAL SHOULD BE:

- ▶ Low Heat Conductor
- ▶ Long-lasting
- ▶ Strong
- ▶ Light Weight
- ▶ Water Repellent
- ▶ Odourless
- ▶ Hygienic
- ▶ Adaptable

The Temperature Comparison Chart shows the difference in energy consumption between a non-insulated and a Diamond Jumbolon insulated roof. Since 70 - 75% of the heat is transmitted through the roof, therefore only roof temperatures are taken for calculations. To achieve comfortable temperature in a non-insulated room, the air conditioning unit has to start at 9:00 a.m. while in a house insulated with Diamond Jumbolon the air-conditioner is started at 01:00 p.m., thus straight away saving 4 hours of operational cost. If Diamond Jumbolon insulation is as thick as 2 inches, the use of air-conditioner is reduced to only 3 hours a day. Due to its lower thermal conductivity, Diamond Jumbolon does not allow heat penetration, so you can enjoy cooling even after turning the air conditioner off for a longer time.

Values Have Been Analyzed From Field Data Collected From May-August Of Last 3 Years. All temperature values are given in 0.01°m Centigrade and may vary with geographical change.

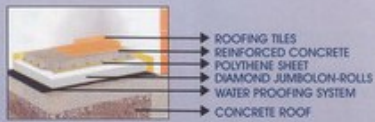
DIAMOND Jumbolon-Rolls SALIENT FEATURES

- Non-settling
- Unbreakable, Adaptable & Shock absorbing
- Excellent Waterproofing & damp proofing / Protector
- Outstanding effect for anti-noise device & sound tight rooms
- Chemical resistant & non-poisonous character
- Easy handling for heat-sealing, punching, embosing, lamination & printing etc.
- Antibacterial and Antifungal

DIAMOND Jumbolon-Rolls INSTALLATIONS

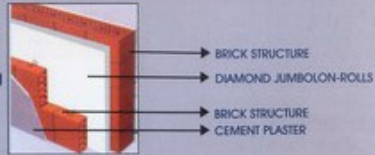
ROOF INSULATION

METHOD 1



METHOD 2

WALL INSULATION



DIAMOND Jumbolon-Rolls PHYSICAL PROPERTIES

Item	Unit	Result	Testing Method	Item	Unit	Result	Testing Method
General				Safety			
Colour		White/any		Toxicity (Total Combustion)	%	Non-toxic	
Cell Structure		Closed very fine		Flammability		Self Extinguishing Class "A"	ASTM D635.91 UL-94 ASTM E-84
Density	Kg/m ³	Normal: 30 ± 10% Variable: 25-70 ± 10%	ISO945 1988(E)	Economy			
UV-Resistance		Excellent with Paint/Foil		Smoke Density			
Odour		Nil		Thermal Conductivity (λ)	W/mk m ² /hr/ft	0.0299 0.207	ASTM C177
Chemical Resistance		Excellent	ASTM 547 BS4433	Water permeability	Mg/Ns	Nil	ASTM196 Pt D
Temperature Range	°C	-80 to 85		Vapour Barrier		Excellent	
Flexibility		Good	BS4433	Exterior Finish	Standard Optional	Smooth Aluminium Sheet Aluminium Foil PVC Sheet	



Insist on **DIAMOND JUMBOLON**



From the makers of **SupremeFoam®**
 23 km, Multan Road, Mohlanwal Lahore.
UAN: (92-42) 111 111 666, **Ext:** 122 177
Mobile: 0322-44 55 111
Website: www.jumbolon.com
Email: jumbolon@diamondfoam.com