



Pregis

Protective Packaging Solutions



Many Application Needs



Many Markets Served



microGUARD[™]
Polypropylene Foam by Pregis



MICROGUARD™ FOAM VALUE PROPOSITION

Pregis provides 3 stock sizes of Microguard low-density polypropylene sheet foam for readily available, low maintenance, cost-effective, durable protective packaging. For superb cushioning, void fill, interleaving, surface protection, vapor transmission, thermal and insulation properties, Microguard is ready to deliver.

UNIQUE FOAM FOR YOUR UNIQUE NEEDS: ONLY PREGIS

Microguard polypropylene sheet foam is designed to meet a broad array of end-user, application and market needs. It's unique high coefficient of friction and lightweight properties protect products better than competitive alternatives. Only one manufacturer in the world can offer low-density polypropylene sheet foam—Pregis.


Microguard polypropylene sheet foam's features and benefits specifically address the shortcomings and frustrations commonly experienced with alternative packaging materials.

Features and Benefits	Results
High coefficient of friction.	Unequaled protection for delicate finishes against vibration and shifting during transit.
Low density, lightweight (half the weight of polyethylene sheet foam).	Ease of use, reduction in labor and shipping costs.
Recyclable. Photodegradable.	Sustainable foam packaging option.
Chemically inert.	Won't tarnish or corrode sensitive metals.
Readily accepts labels and tape.	Cost savings on expensive adhesives.
Thermal and vapor transmission properties.	Thermal benefits: use as insulating blanket and overwintering protection for plants.
High melting point.	Heightened performance from -250°F up to 250°F with a melting point of 320°F.
Superior Flexibility.	Easy to handle.
Outstanding breathability. Mildew, moisture, fungus resistant.	Enables the release of vapors while protecting against condensation and water damage.



EVERYBODY WINS WITH THE MICROGUARD SOLUTION

Today, we make it easier than ever to procure polypropylene sheet foam, so many are turning to Microguard as their protective packaging of choice.

Distributor	End-User	Environment Think Sustainability. Think Pregis.™
Fast, just-in-time delivery. No minimums.	Less product breakage, cost efficient.	Recyclable. Uses less raw materials than other forms of packaging. 
Easy to move, handle and store.	Delivery of product, uncompromised.	Lighter weight uses less fuel during distribution.
Differentiated product to increase sales.	Versatile applications, low maintenance.	Superior cushioning properties enable users to use less sheet foam on products versus alternatives.

USE MICROGUARD FOR ALL YOUR SURFACE PROTECTION, INTERLEAVING, AND LIGHT CUSHIONING NEEDS:

Pregis understands that today, more than ever, companies are in need of cost effective, strong and reliable protective packaging products for a variety of applications while minimizing damage to goods during transit.

Market Segments Served

- Agriculture/Produce
- Automotive
- Doors/Building Material
- Electronics/Appliances
- Food
- Fulfillment/Mail Order Houses
- Furniture: Household/Outdoor/Office
- Moving and Storage
- Pharmaceuticals
- Publishing
- Supply Specialists
- Transportation

End-use Applications

- Auto Parts: Painted or Glossy Plastic and Metal
- Dishes and Silverware
- Fabricated, High Gloss Metal Parts
- Fine Art
- Fixtures
- Glass and Collectibles
- Glass Containers
- Lighting Equipment
- Polished Products
- Pottery
- Produce Interleaving and Top Pads
- Wood Furniture

ABOUT PREGIS:

At Pregis, our goal is to provide customers with a **deep breadth of high quality, superior protective** packaging solutions while remaining on the forefront of R&D and technology that will continually bring **new, innovative protective packaging** offerings to the marketplace. We are committed to incorporating and promoting **business practices that respect both the earth and the environment.**



Think Sustainability
Think Pregis™

Pregis Corporation is a leading global provider of innovative protective, flexible, and foodservice packaging and hospital supply products. The specialty-packaging leader currently operates 47 facilities in 18 countries around the world.



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PRODUCT PERFORMANCE COMPARISONS				
Property	Microguard™ Polypropylene Sheet Foam	Polyethylene Sheet Foams	Air Cushion Bubble	Cellulose Wadding
Abrasion	Excellent	Good	Fair	Fair/Poor
Tear	Good	Excellent	Good	Fair
Resilient	Excellent	Excellent	Good/Excellent	Poor
Water Resistance	Excellent	Excellent	Excellent	Poor
Fungus Resistance	Excellent	Excellent	Excellent	Some
Chemical Neutrality	Excellent	Good	Excellent	Some
Dust Free	Excellent	Excellent	Excellent	Poor
Thermal Efficiency	Excellent	Good	Fair	Poor
Light Weight	Excellent	Good/Fair	Good	Poor
Compression Resistance	Good	Excellent	Fair	Poor
TYPICAL FUNCTIONAL REPLACEMENTS				
	Microguard™ Polypropylene Sheet Foam	Polyethylene Sheet Foams	Air Cushion Bubble	
Nominal Thickness	1/32"	1/32"	1/16"	
	1/16"	1/16"	3/32"	
	3/32"	3/32"	1/8" small bubble	
COEFFICIENT OF FRICTION (SCALE .00 — 1.0)				
	Microguard™ Polypropylene Foam	Polyethylene Foams	Air Cushion Bubble	Paper
Lacquered Wood	0.47	0.42	0.31	0.26
Glass	0.75	0.75	0.52	0.42
Corrugated	0.35	0.28	0.31	0.41
Metal	0.60	0.42	0.30	0.40
INSULATION RATING				
	Microguard™ Polypropylene Foam	Polyethylene Foams	Air Cushion Bubble	Fiberglass
R-Rating at 1" Thickness	3.7	3.4	2.4	3.3
VAPOR TRANSMISSION				
	Microguard™ Polypropylene Foam	Polyethylene Foams	Air Cushion Bubble	
H ₂ O Vapor (g/100 in ² /24 hr)	7.3	2.8	1.4	
Oxygen (cc/100 in ² /24 hr)	1,475	940	380	
CO ₂ (cc/100 in ² /24 hr)	5,000	4,470	2,360	
Water Absorption (lbs/ft ²)	.04	.02	.04	
MELTING POINT				
	Microguard™ Polypropylene Foam	Polyethylene Foams	Air Cushion Bubble	
Melting Point (°F)	320°	228°	200°	

Pregis Corporation's dedication to our customers includes a broad line of packaging products and world class customer service. Our Consultative Sales Team is equipped to recommend the right packaging solution for your application.

Contact Pregis protective packaging solutions:

877.692.6163

www.pregis.com



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