



Cross-linked Polyethylene Foams

Qycell Corporation specializes in the production and distribution of high-performance closed-cell cross-linked polyolefin foams. Qycell brand foams are the preferred choice for applications that require die cutting, laminating, welding, and thermoforming due to the foam's superior consistency. Qycell supplies cross-linked, irradiated, EVA, and micro-cellular bun foams to the following Qycell specifications.

TI-Foam / T-Foam

Irradiation (TI) and chemically (T) cross-linked closed cell polyethylene (PE) foam is manufactured as a continuous sheet, which can be supplied as either rolls or sheets of foam.

Density or "hardness" ranges from 2.0 lbs pcf (lbs per ft³) and extends to 30 lbs pcf. Qycell designates 2 lbs pcf as T-20, 3 lbs pcf as T-30, etc..

Thickness of the roll/sheet ranges anywhere from 1/32" to 4".

Widths of the roll/sheet vary from our standard 60" to as wide as 72". (A typical roll diameter is approximately 36".)

Lengths of the roll/sheet ranges anywhere from 10 ft to 2,000 ft.

Colors are classed within two categories. The standard colors are natural (the color of French vanilla ice cream), gray, charcoal, and black. Custom colors are available for an additional fee.

Additives such as PE film (or skin) are designated by the letter "F" (i.e. TF). The letter "E" is designated for EVA (ethyl vinyl acetate), which is primarily added to enhance the softness or elasticity of the foam (i.e. TE). The additive for flame retardant is designated as "FR" and alloy is represented as "A". A single sided smooth surface is represented as "SM", however a double-sided smooth surface is represented as "SSM" (i.e. TSSM).

Minimum: An order of five rolls is required for purchase.

TB-Foam

A chemically (T) cross-linked, closed cell, micro-cellular polyethylene foam. This manufacturing process utilizes a "pressed-bun" process that results in one of its nicknames "bun" (B). Other names are derived from its appearance such as plank, mini-cell, EVA, and sheet form.

Density: TB-20 is a nominal 2.0 pcf
TB-30 is a nominal 3.0 pcf
TB-40 is a nominal 4.0 pcf
TB-60 is a nominal 6.0 pcf

Bun Sizes: 4" x 48" x 72" and 4" x 40" x 80" are the untrimmed standard sizes. All buns come with a tough outer skin or skived on the top and bottom surfaces.

Colors: Standard colors include white, gray, charcoal, and black. Other colors are available for an additional charge.

Bags: Clear, heavy duty, recycled PE material is used in packaging our material.

Additives: EVA (E) and Flame Retardant (FR) are added for special orders.

Minimum: An order of twenty buns is required for purchase. (Orders less than a container load are shipped from our stock on hand.)

TI-Foam / T-Foam / TB-Foam Physical Properties*

QYCELL Designation	TI-20	TI-40	TI-60	T 20	T 40	T 60	TB 20	TB 30	TB 40	TB 60
Nominal Density (PCF)	2.0	4.0	6.0	2.0	4.0	6.0	2.0	3.0	4.0	6.0
Tensile Strength (PSI)	44	70	130	43	70	135	35	78	121	80
Elongation (% to break)	150	180	200	120	150	190	231	281	205	180
Tear Resistance (lb/in)	13	18	35	11	17	36	8	14	17	19
Compression Strength (PSI) (25% deflection)	7	13	35	6	12	19	9	12	18	19
Compression Set (% of original thickness)	22	16	11	24	18	13	15	13	11	10
Thermal Stability (% of chg @ 158° for 24hrs)	<.6	<.6	<.6	<.5	<.6	<.6				
Thermal Conductivity (btu/hr/inch ft/°F)	.27	.29	.30	.26	.30	.30	.26	.28	.30	.30
Working Temperature Range	-70°F to 175°F									
Water Absorption (lb/ft ² /°F)	<.06	<.05	<.05	<.06	<.05	<.04	<.07	<.07	<.07	
Flammability (MVSS302)	Pass Available									

*Testing done according to ASTM D3575 & ASTM C177 (thermal conductivity) standards.

Test methods available upon request. All data is typical and not to be considered specification values.

