

MM127SG
Version: 03



MERCHANTS METALS

The First Name In Fence

“Secure-Guard™”

*The World's Most Secure
Chain Link Fencing*

MERCHANTS METALS

Use "Secure-Guard™" . . .

What is "Secure-Guard™"?

"Secure-Guard™" is a high security chain link mesh that has smaller openings through which most objects cannot pass. These same smaller openings minimize the possibility of fingers or toes being inserted to facilitate climbing. "Secure-Guard™" is made in 3/8", 1/2", 5/8" or 1" mesh sizes. These small openings also make it more difficult to manually cut through because there is so little space for the cutters to operate.



Cutters can't get into small openings of a "Secure-Guard™" fence.

Because of the small openings it is practically impossible to pass even the smallest objects through a "Secure-Guard™" fence.

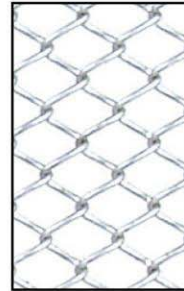


"Secure-Guard™" is ideal for special security areas such as:

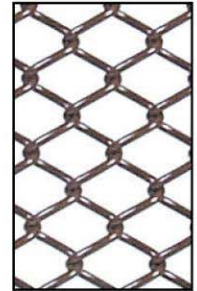
- Pedestrian Overpasses
- Prisons
- Housing Sites
- Warehouses
- Industrial Storage Yards
- Bridges
- Military Facilities

Actual Sizes of Openings

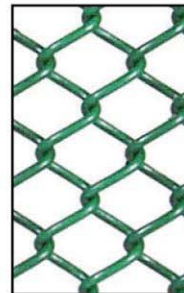
Photos shown are not to scale



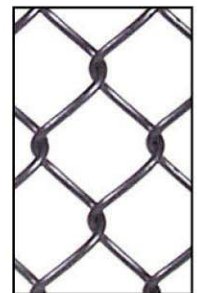
3/8"



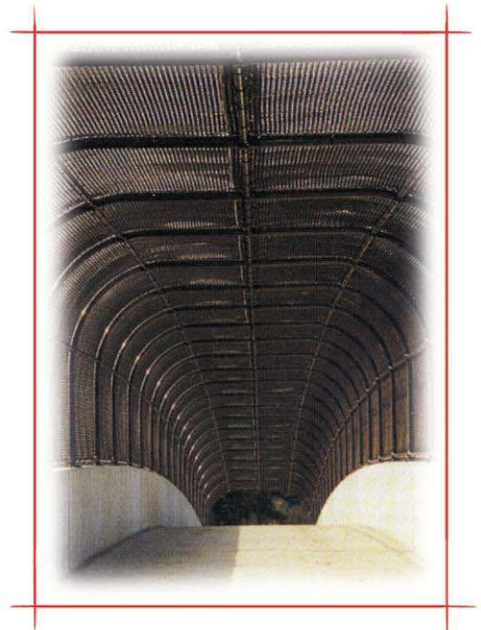
1/2"



5/8"



1"



MERCHANTS METALS
The First Name In Fence

Note: Fencing utilizing fabric sizes smaller than 1" (25mm) trade size and wind screen fencing are subject to wind and ice loads and the framework should be designed to accommodate these additional forces.

Vinyl Coated Fabric and Framework



- Attractive
- Secure
- Low Maintenance
- Affordable

Vinyl coatings that are impervious to weather conditions add many years of life with a minimum of maintenance.

“Secure-Guard™” Fabric* on Galvanized Framework

- Secure
- Affordable



*Galvanized fabric or aluminized fabric or vinyl coated fabric may be used with galvanized framework.

For the Added Beauty of Color . . . Choose "Secure-Bond™" Framework & Fabric

The Vinyl Coated Fencing Systems Per Federal and ASTM Specifications

"Secure-Bond™" Fencing System

A specially formulated polyvinylchloride (PVC), compounded of virgin PVC resins, plasticizers and stabilizers, is fused and bonded to a high quality commercial grade steel core wire which has been given a standard coating of zinc in accordance with ASTM F-668 (wire) and F-1043 (framework). With this Merchants Metals Process, the galvanized steel substrate is mechanically cleaned and chemically treated to produce a molecular bond between the galvanized core and the vinyl. The strength of the bond is greater than the cohesive strength of the PVC material itself.



Fabric

This permanently fused vinyl coating provides a dense and impervious covering, free of voids, with a smooth surface. Merchants Metals' exclusive process permits the use of a larger diameter core wire (see illustration) because it requires only a 7 to 10 mil coating of vinyl (compared to the approximate 15 to 25 mil vinyl coating for extruded plastic coated wire) to assure protection from corrosion.

The resulting product is a wire with a fused-on vinyl coating that is evenly applied and free of pin holes and blisters. The vinyl coating will not peel, crack or shrink. It has excellent flexibility and bends at temperatures as low as -20°F. Security Fencing has exceptional corrosion and abrasion resistance and will not support combustion.

"Secure-Bond™" Fabric

Product Description	Nominal Steel Wire Core Diameter	Minimum Zinc Coating	Minimum Vinyl Thickness	Minimum Break Strength	Finish Size
*6 Gage	.192"	0.40 oz/ft. ²	7 Mils	2,170 lbs.	5 Gage
*9 Gage	.148"	0.30 oz/ft. ²	7 Mils	1,290 lbs.	8 Gage
10 Gage	.135"	Commercial	7 Mils	1,000 lbs.	9 Gage
*11 Gage	.120"	0.30 oz/ft. ²	7 Mils	850 lbs.	10 Gage
12 Gage	.105"	0.30 oz/ft. ²	7 Mils	600 lbs.	11 Gage

*Conforms to Fed Spec RRF-191 and ASTM F668 Class 2b.

**Ideal for
Parks, Schools, and High-End
Industrial & Commercial Projects**



MERCHANTS METALS

When Maximum Security is a Must . . .

"Secure-Guard™" mesh has outstanding "Burst Strength." Because the individual strands of wire are only 3/8", 1/2", 5/8" or 1" apart, a projectile or other forceful object would hit multiple strands rather than just a few, as in standard mesh. The multiple strands of the "Secure-Guard™" fence would have far greater resistance to damage or penetration than a standard 2" mesh. (See photos to right for illustration of object hitting fabric)

"Secure-Guard™" Maximum Security Fencing

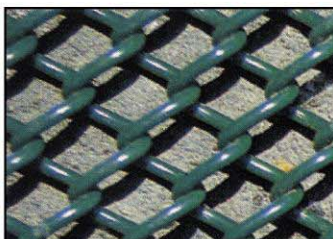
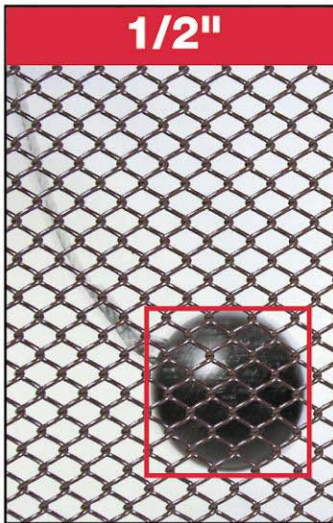
"Secure-Guard™" Maximum Security Fencing meets or exceeds Fed. Spec. RRF-191 and ASTM A-491.

Burst Strength	Lbs per ft of height
A —3/8" opening .120 in diameter (11 ga.) steel core wire, galvanized.**	39,809*
B —3/8" opening .080 in diameter (14 ga.) galvanized** steel core wire, .095 in diameterbonded vinyl finish size.	17,690*
C —3/8" opening .105 in diameter (12 ga.) galvanized** steel core wire, .120 in diameterbonded vinyl finish size.	30,450*
D —3/8" opening .148 in diameter (9 ga.) steel core wire, galvanized.**	60,500*

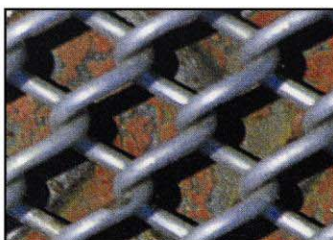
COMPARISON: Regular 2" mesh .120 diameter wire (11 ga.) has a burst strength of 9,900* lbs. per ft. of height.

*All figures based on 110,000 PSI wire tensile.

**Vinyl coating may be applied over aluminized wire upon special request.



3/8" Vinyl Coated Fabric



5/8" Aluminized Coated Fabric

Wire Type	Mesh Opening				
		3/8"	1/2"	5/8"	1"
Aluminum or Galvanized Coating					
GAGE					
9	.148"	■	■	■	■
11	.120"	■	■	■	■

Vinyl Coated (P.V.C.) Thermally Fused & Bonded

*9 ga. CORE	8 ga. FINISH	Bonded	■	■	■	■
10 ga. CORE	9 ga. FINISH	Bonded	■	■	■	■
*11 ga. CORE	10 ga. FINISH	Bonded	■	■	■	■
**12 ga. CORE	11 ga. FINISH	Bonded	■	■	■	■
**14 ga. CORE	13 ga. FINISH	Bonded	■	■	■	■

Thermally fused and bonded 7 to 10 mil coating.

*Meets Fed Spec RRF-191 and ASTM F668 Class 2b.

**Meets ASTM F668 Class 2b.

MERCHANTS METALS

Merchants Metals Has a Complete Line of Chain Link Framework to Complement Your Choice of Fabric

**We call this
complete system
"Secure-Bond™"**

PVC Vinyl Coated Finish Galvanized
Undercoat Framework & Fabric



"Secure-Bond™" Framework

Size			Min. Wall Thickness Grade A		Weight Grade A		Min. Vinyl Thickness Grade A		Min. Yield Strength Grade A	
O.D.	in	mm	in	mm	lbs/ft	kg/m	in	mm	ksi	Mpa
1 5/8	1.660	42.2	0.140	3.56	2.27	3.4	0.010	0.25	30	205
2	1.900	48.3	0.145	3.68	2.72	4.0	0.010	0.25	30	205
2 1/2	2.375	60.3	0.154	3.91	3.65	5.4	0.010	0.25	30	205
3	2.875	73.0	0.203	5.16	5.79	8.6	0.010	0.25	30	205
3 1/2	3.500	88.9	0.216	5.49	7.58	11.3	0.010	0.25	30	205
4	4.000	101.6	0.226	5.74	9.11	13.6	0.010	0.25	30	205
6 5/8	6.625	168.3	0.280	7.11	18.97	28.3	0.010	0.25	30	205
8 5/8	8.625	219.1	0.322	8.18	28.55	42.5	0.010	0.25	30	205

Conforms to Fed Spec RRF-191, ASTM F1083 and ASTM F1043.

**Shown:
Vinyl coated over
galvanized wire
fabric and vinyl
coated over
galvanized pipe
framework**

Recommended Post Sizes For FENCE

Use and Section	Nominal Outside Diameter		ASTM F1043 Group IA F1083 Nominal Weight	
	inches	(mm)	lbs/ft	(kg/m)
End corner and pull posts for fabric height 6'0" (1.83 m) and less: Over 6'0" (1.83 m):	2.375	(60.0)	3.65	(5.43)
	2.875	(73.0)	5.79	(8.62)
Intermediate (Line) posts for fabric height 6'0" (1.83 m) and less: Over 6'0" (1.83 m):	1.900	(48.3)	2.72	(4.05)
	2.375	(60.0)	3.65	(5.43)
Rails and post braces	1.660	(42.0)	2.27	(3.38)

Recommended Post Sizes For SWING GATES

Use and Section	Nominal Outside Diameter		ASTM F1043 Group IA F1083 Nominal Weight	
	inches	(mm)	lbs/ft	(kg/m)
Gate posts for nominal width of gate, single or one leaf of double gate: Fabric height 6'0" (1.83 m) or less: Gate leaf width: up to and including 4'0" (1.22 m) Over 4'0" (1.22 m) to 10'0" (3.05 m) Over 10'0" (3.05 m) to 18'0" (5.49 m)	2.375	(60.3)	3.65	(5.43)
	2.875	(73.0)	5.79	(8.62)
	4.000	(101.6)	9.10	(13.52)
Fabric height over 6'0": Gate leaf width: up to and including 6'0" (1.83 m) Over 6'0" (1.83 m) to 12'0" (3.67 m) Over 12'0" (3.67 m) to 18'0" (5.49 m) Over 18'0" (5.49 m) to 24'0" (7.32 m)	2.875	(73.0)	5.79	(8.62)
	4.000	(101.6)	9.10	(13.54)
	6.625	(168.3)	18.97	(28.23)
	8.625	(219.1)	28.58	(42.52)
Gate frames 6'0" (1.83 m) or less in height, 8'0" (2.44 m) or less in width: Over 6'0" (1.83 m) or less in height, or over 8'0" (2.44 m) in width: Interior bracing, when required	1.660	(42.2)	2.27	(3.38)
	1.900	(48.3)	2.72	(4.05)
	1.660	(42.2)	2.27	(3.38)