

## **CI SURE SHIELD® MERV 9 DL Pleated Filters 1", 2" & 4"**



## **Introducing our New Double the Life Pleated Filter with over 200 grams of Dust Holding Capacity!**

*CI SURE SHIELD® DL Pleated Filters are engineered with superior performance criteria in all facets of filtration including efficiency, resistance, and dust-holding capacity to address today's challenging HVAC system requirements. As a part of the most advanced and innovative line of HVAC filtration products, the CI SURE SHIELD® DL Pleated Filter combines an excellent initial and lifecycle resistance with a high dust-holding capacity. This filter provides rugged construction for heavy dirt loads. This combination provides optimum filter performance — creating the energy and operating cost savings desired in the demanding HVAC market. The CI SURE SHIELD® DL Pleated Filter is backed by the outstanding customer service and on-time delivery that customers have come to expect from Columbus Industries.*

### **Description and Benefits**

The CI **SURE SHIELD®** DL Pleated Filters doubles the life of your standard pleated filter and has well over 200 grams of holding capacity per independent test. CI **SURE SHIELD®** DL Pleated Filters are an extended surface, medium-efficiency product designed to provide optimum performance in both pre-filtration and standalone applications in high velocity environments. The uniquely engineered filter media is designed to provide the optimum performance in airflow resistance, efficiency and dust-loading uniformity.

With its exceptional design, the CI **SURE SHIELD®** DL Pleated Filter can withstand high velocity air flows while improving indoor air quality and removing contaminants. This pleated filter is engineered to protect both expensive HVAC equipment and workers from dirty air and its damaging effects. The CI **SURE SHIELD®** DL Pleated Filter will also extend the life of costly secondary filters while doubling the life of a standard pleated filter. Equally important, the user-friendly filter is lightweight, durable and easy to install.

CI **SURE SHIELD®** DL Pleated Filter's engineered media is bonded to an expanded heavy metal backing designed to withstand the pressures exerted in high velocity environments. The media is then formed into a geometrically designed pleat element and sealed in a heavy-duty, moisture-resistant kraft board frame. Each stage of the assembly process is quality controlled to ensure the filter's performance, consistency and durability. These design and construction features combine to produce the best all-around filter performance.

Looking for LEED certification? The CI **SURE SHIELD®** DL Pleated Filter can be used to meet new construction phase requirements for the Green Building Council's LEED certification program.

### **Quick Facts**

#### **Features:**

- Provides low initial resistance
- Provides low energy consumption
- Provides low operating cost
- Provides over 200 grams of holding capacity
- Doubles the life of a standard pleated filter
- Meets requirements for new construction phase for LEED program
- Protects equipment and extends lifecycle of secondary filters

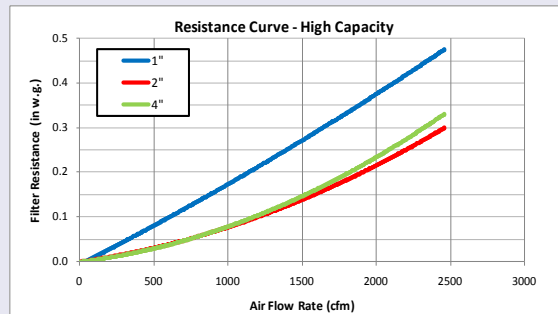
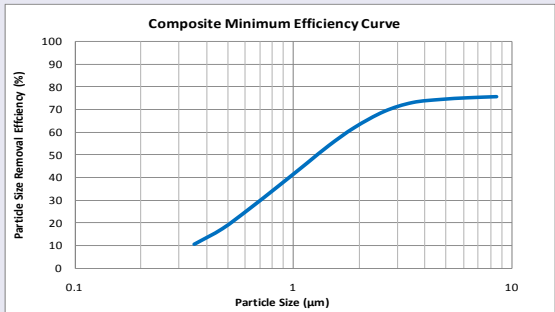
#### **Applications:**

- Commercial and industrial facilities
- Gun Range
- Pharmaceutical
- Government and educational facilities
- Hospital
- Gas turbine and high velocity applications

#### **Technical Information:**

- Available in 1", 2" and 4" depths in a variety of standard sizes
- MERV 9
- Tested in accordance with ASHRAE Test Standard 52.2-2012
- UL Standard 900 tested and approved
- Utilizes mechanical filtration
- Temperature rated up to 180°F
- Kraft board frame with added moisture resistance

# CI SURE SHIELD® DL Pleated Filters 1", 2" & 4"



Dust Fed Increment (grms)	Total Dust Fed (grms)	Resistance (in W.G.)
0	0	0.21
40	40	0.29
40	80	0.39
40	120	0.52
40	160	0.71
40	200	1.06
30	230	1.50

MERV 9	Rated Air Flow Capacity (CFM)	Initial Air Flow Resistance (W.G.)	Pleats per Lineal Foot
Depth			
1"	1968	0.37	16
2"	1968	0.21	15
4"	1968	0.23	11

Nominal Size	Exact Size	Rated Air Flow Capacity (CFM)	Initial Air Flow Resistance (W.G.)	Media Area (SF)
10x10x1	9-1/2"x9-1/2"x3/4"	348	0.37	3.3
10x20x1	9-1/2"x19-1/2"x3/4"	695	0.37	2.7
12x12x1	11-3/8"x11-3/8"x3/4"	500	0.37	4.0
12x20x1	11-1/2"x19-1/2"x3/4"	834	0.37	3.2
12x24x1	11-1/2"x23-1/2"x3/4"	1000	0.37	3.8
14x14x1	13-1/2"x13-1/2"x3/4"	680	0.37	2.6
14x25x1	13-1/2"x24-1/2"x3/4"	1216	0.37	4.5
15x20x1	14-1/2"x19-1/2"x3/4"	1042	0.37	3.9
16x16x1	15-1/2"x15-1/2"x3/4"	889	0.37	4.3
16x20x1	15-1/5"x19-1/2"x3/4"	1112	0.37	4.3
16x24x1	15-1/2"x23-1/2"x3/4"	1334	0.37	5.2
16x25x1	15-1/2"x24-1/2"x3/4"	1389	0.37	5.4
18x18x1	17-3/4"x17-3/4"x3/4"	1125	0.37	4.8
18x20x1	17-1/2"x19-1/2"x3/4"	1250	0.37	4.8
18x24x1	17-3/8"x23-3/8"x3/4"	1500	0.37	5.7
18x25x1	17-1/2"x24-1/2"x3/4"	1563	0.37	6.0
20x20x1	19-1/2"x19-1/2"x3/4"	1389	0.37	5.2
20x24x1	19-1/2"x23-1/2"x3/4"	1667	0.37	6.3
20x25x1	19-1/2"x24-1/2"x3/4"	1737	0.37	6.5
20x30x1	19-3/4"x29-3/4"x3/4"	2084	0.37	5.2
22x22x1	21-3/4"x21-2/4"x3/4"	1681	0.37	7.1
24x24x1	23-3/8"x23-3/8"x3/4"	2000	0.37	7.6
25x25x1	24-1/2"x24-1/2"x3/4"	2171	0.37	8.2

10x20x2	9-1/2"x19-1/2"x1-3/4"	695	0.21	5.9
12x20x2	11-1/2"x19-1/2"x1-3/4"	834	0.21	7.3
12x24x2	11-3/8"x23-3/8"x1-3/4"	1000	0.21	8.8
14x20x2	13-1/2"x19-1/2"x1-3/4"	973	0.21	8.3
14x25x2	13-1/2"x24-1/2"x1-3/4"	1216	0.21	10.4
15x20x2	14-1/2"x19-1/2"x1-3/4"	1042	0.21	9.3
16x16x2	15-1/2"x15-1/2"x1-3/4"	889	0.21	9.8
16x20x2	15-1/2"x19-1/2"x1-3/4"	1112	0.21	9.8
16x24x2	15-3/8"x23-3/8"x1-3/4"	1334	0.21	11.7
16x25x2	15-1/2"x24-1/2"x1-3/4"	1389	0.21	12.2
18x24x2	17-3/8"x23-3/8"x1-3/4"	1500	0.21	12.8
18x25x2	17-1/2"x24-1/2"x1-3/4"	1563	0.21	13.4
20x20x2	19-1/2"x19-1/2"x1-3/4"	1389	0.21	12.2
20x24x2	19-3/8"x23-3/8"x1-3/4"	1667	0.21	14.6
20x25x2	19-1/2"x24-1/2"x1-3/4"	1737	0.21	15.3
24x24x2	23-3/8"x23-3/8"x1-3/4"	2000	0.21	17.5
25x25x2	24-1/2"x24-1/2"x1-3/4"	2171	0.21	18.9

12x24x4	11-1/2"x23-1/2"x3-3/4"	1000	0.23	13.8
16x20x4	15-1/2"x19-1/2"x3-3/4"	1112	0.23	15.7
16x25x4	15-1/2"x24-1/2"x3-3/4"	1389	0.23	19.6
18x24x4	17-1/2"x23-1/2"x3-3/4"	1500	0.23	20.1
20x20x4	19-1/2"x19-1/2"x3-3/4"	1389	0.23	18.9
20x24x4	19-1/2"x23-1/2"x3-3/4"	1667	0.23	22.6
20x25x4	19-1/2"x24-1/2"x3-3/4"	1737	0.23	23.6
24x24x4	23-1/2"x23-1/2"x3-3/4"	2000	0.23	27.6

\*Test results based on 24x24x2 filter.

Performance Engineered Air Filter Products  
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