# FLUSH HOLLOW CORE

**Specifications:** 3 & 5 Ply construction. Meets or exceeds industry standards of WDMA I.S.1.

**Lay Up Method:** Loose

**Maximum Sizes:** Width - 4/0. Length depends on face (See faces below for available length)

**Thickness:** 1-3/8” and 1-3/4” ONLY

**Stiles:** MDF available on MDF type skins, Only 1-3/8” Thickness & 6/8 Length. Softwood available on all skin types 1-3/8” and 1-3/4” Thickness. Width = 1” Nominal, 13/16” Minimum after prefit size.

**Rails:** 1-3/8” Thickness = MDF, 1-5/8” Nominal, 1” Minimum after undercut 1-3/4” Thickness = MDF, 2-1/4” Nominal, 1” Minimum after undercut

**Core:** Cellular Honeycomb with 5” Hexagonal cells.

**Lock Blocks:** Double 3” x 20” Particleboard (28lb) as standard.

**Faces:** Lauan (Okoume) - Raw, 2 ply, 8/0 Maximum. RN Birch - Raw, 2 ply, 1/64” Face veneer thickness, 8/0 Maximum. PS Red Oak - Raw, 2 ply, 1/64” face veneer thickness, 8/0 Maximum. MDF - Primed and Raw, Single Ply, 10/0 Maximum. Embossed MDF - Primed andPrefinished, Single Ply, 8/0 Maximum.

**Adhesive:** Type-1 PVA, Interior installation only.

**Machining:** To Specification

**Lites:** To specification. Blocking only upon request.

**Louvers:** To specification. Blocking only upon request.

**Acoustical Rating:** N/A

**Warranty:** Standard two year. See limited warranty for details. *No warranty for Telephrasing*

**Description & Abbreviations:**
- **FP-1-3/8** = 1-3/8” Thick, MDF Stiles
- **FJ-1-3/8** = 1-3/8” Thick, FJ Softwood Stiles
- **SWE-1-3/8** = 1-3/8” Thick, Clear Softwood Stiles
- **FJ-1-3/4** = 1-3/4” Thick, FJ Softwood Stiles
- **SWE-1-3/4** = 1-3/4” Thick, Clear Softwood Stiles

**Recommended Use:** Residential and Light Commercial
## MOLDED PANEL HOLLOW CORE

<table>
<thead>
<tr>
<th>Specifications</th>
<th>3 Ply construction. Meets or exceeds industry standards of WDMA I.S.1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lay Up Method</td>
<td>Loose</td>
</tr>
</tbody>
</table>
| Maximum Sizes  | Width - 3/0  
Length - 8/0 *Certain styles only* |
| Thickness      | 1-3/8” and 1-3/4” ONLY |
| Stiles         | MDF on only 1-3/8” Thickness & 6/8 Length.  
FJ Softwood option on 1-3/8” and 1-3/4” Thickness, to 8/0 length.  
Width = 1” Nominal, 13/16” Minimum after prefit size. |
| Rails          | 1-3/8” Thickness = MDF, 1-5/8” Nominal, 1” Minimum after undercut  
1-3/4” Thickness = MDF, 2-1/4” Nominal, 1” Minimum after undercut  
2” Nominal Bottom rail available on 1-3/8 Thickness (DBR) |
| Core           | Cellular Honeycomb build up pads. |
| Lock Blocks    | Double 3” x 10” Particleboard (28lb) as standard. |
| Faces          | Primed MDF Molded Panel, Single ply |
| Adhesive       | Type-1 PVA, Interior installation only. |
| Machining      | To Specification |
| Lites          | N/A |
| Louvers        | N/A |
| Acoustical Rating | N/A |
| Warranty       | Standard two year. See limited warranty for details.  
*No warranty for Telegraphing* |
| Description    | (FP-1-3/8) = 1-3/8” Thick, MDF Stiles  
(FJ-1-3/8) = 1-3/8” Thick, FJ Softwood Stiles  
(FJ-1-3/4) = 1-3/4” Thick, FJ Softwood Stiles |
| Abbreviations  | Residential and Light Commercial |

*See molded skin selection guide for all panel elevation designs.*
### BIFOLDING DOORS

<table>
<thead>
<tr>
<th>Specifications:</th>
<th>Bifolding doors are available in the following door types.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hollow Core Flush, Hollow Core Molded Panel, Molded Panel Economy</td>
</tr>
<tr>
<td></td>
<td>Particleboard Core, Flush Economy, Particleboard Core, Flush Standard</td>
</tr>
<tr>
<td>Maximum Sizes:</td>
<td>See Specific Door Type.</td>
</tr>
<tr>
<td>Thickness:</td>
<td>See Specific Door Type.</td>
</tr>
<tr>
<td>Stiles:</td>
<td>1&quot; Wood</td>
</tr>
<tr>
<td></td>
<td>2-1/4&quot; Wood on 1-3/4&quot; Thickness.</td>
</tr>
<tr>
<td>Core:</td>
<td>See Specific Door Type.</td>
</tr>
<tr>
<td>Lock Blocks:</td>
<td>See Specific Door Type.</td>
</tr>
<tr>
<td>Faces:</td>
<td>See Specific Door Type.</td>
</tr>
<tr>
<td>Adhesive:</td>
<td>Type-1 PVA, Interior installation only.</td>
</tr>
<tr>
<td>Machining:</td>
<td>N/A</td>
</tr>
<tr>
<td>Lites:</td>
<td>N/A</td>
</tr>
<tr>
<td>Louvers:</td>
<td>N/A</td>
</tr>
<tr>
<td>Acoustical Rating:</td>
<td>N/A</td>
</tr>
<tr>
<td>Warranty:</td>
<td>Standard two year. See limited warranty for details. (See Specific Door Type)</td>
</tr>
<tr>
<td>Description:</td>
<td>See Specific Door Type.</td>
</tr>
<tr>
<td>Abbreviations:</td>
<td></td>
</tr>
<tr>
<td>Recommended Use:</td>
<td>Residential and Light Commercial</td>
</tr>
<tr>
<td>Hardware:</td>
<td>Hinges - Edge Mount window hinge.</td>
</tr>
<tr>
<td></td>
<td>Standard Duty Track &amp; Hardware - Stanley #2900 Series.</td>
</tr>
<tr>
<td></td>
<td>Heavy Duty Track &amp; Hardware - Stanley #2700 Series.</td>
</tr>
</tbody>
</table>

* All bifolds are boxed with track and hardware. Non boxed (bulk packaging) available on request.
**MOLDED PANEL “ECONOMY” PARTICLEBOARD CORE**

<table>
<thead>
<tr>
<th>Specifications:</th>
<th>3 Ply construction. Meets or exceeds industry standards of WDMA I.S.1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lay Up Method</td>
<td>Loose</td>
</tr>
<tr>
<td>Maximum Sizes:</td>
<td>Width - 3’/0</td>
</tr>
<tr>
<td></td>
<td>Length - 8’/0 <em>Certain styles only</em></td>
</tr>
<tr>
<td>Thickness:</td>
<td>1-3/8” and 1-3/4” ONLY</td>
</tr>
<tr>
<td>Stiles:</td>
<td>FJ Softwood</td>
</tr>
<tr>
<td></td>
<td>Width = 1” Nominal, 13/16” Minimum after prefit size.</td>
</tr>
<tr>
<td>Rails:</td>
<td>1-3/8” Thickness = MDF, 1-5/8” Nominal, 1” Minimum after undercut</td>
</tr>
<tr>
<td></td>
<td>1-3/4” Thickness = MDF, 2-1/4” Nominal, 1” Minimum after undercut</td>
</tr>
<tr>
<td>Core:</td>
<td>28-30lb Particleboard, ANSI A208.1 Grade LD-1, Profiled</td>
</tr>
<tr>
<td>Fire Rating:</td>
<td>1-3/4” Thickness 20 Minute Rated**</td>
</tr>
<tr>
<td>Faces:</td>
<td>Primed MDF Molded Panel, Single ply</td>
</tr>
<tr>
<td>Adhesive:</td>
<td>Type-1 PVA, Interior installation only.</td>
</tr>
<tr>
<td>Machining:</td>
<td>To Specification</td>
</tr>
<tr>
<td>Lites:</td>
<td>N/A</td>
</tr>
<tr>
<td>Louvers:</td>
<td>N/A</td>
</tr>
<tr>
<td>Acoustical Rating:</td>
<td>35 STC Inoperable</td>
</tr>
<tr>
<td>Warranty:</td>
<td>Standard two year. See limited warranty for details.</td>
</tr>
<tr>
<td>Description</td>
<td>E-1-3/8 = 1-3/8” Thick PBC Molded Panel</td>
</tr>
<tr>
<td>Abbreviations:</td>
<td>E-20NL = 1-3/4” Thick PBC Molded Panel (Non-rated)</td>
</tr>
<tr>
<td></td>
<td>E-20NP = 1-3/4” Thick PBC Molded Panel, 20 Minute Neutral Pressure</td>
</tr>
<tr>
<td></td>
<td>E-20B = 1-3/4” Thick PBC Molded Panel, 20 Minute Category B</td>
</tr>
<tr>
<td></td>
<td>E-20A = 1-3/4” Thick PBC Molded Panel, 20 Minute Category A</td>
</tr>
<tr>
<td>Recommended Use:</td>
<td>Residential and Light Commercial</td>
</tr>
</tbody>
</table>

* See molded skin selection guide for all panel elevation designs.

**See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
# FLUSH "ECONOMY" PARTICLEBOARD CORE

**Specifications:**
- 3 & 5 Ply construction. Meets or exceeds industry standards of WDMA 1.S.1. All 20 Minute doors have been tested in conformance to the following standards. ASTM-E-152, CSFM-43.7, CAN4-S104, NFPA-252, UBC-7-2-97, UL-10C

**Lay Up Method:** Loose

**Maximum Sizes:**
- Width: 4'0"
- Length: Depends on faces (See faces below for available length)

**Thickness:**
- 1-3/8" and 1-3/4" ONLY

**Stiles:**
- Softwood (Fir, Pine, Spruce, Basswood, SCL) Mill option
  - Width = 1" Nominal, 13/16" Minimum after prefit size.

**Rails:**
- 1-3/8" Thickness = MDF, 1-5/8" Nominal, 1" Minimum after undercut
- 1-3/4" Thickness = MDF, 2-1/4" Nominal, 1" Minimum after undercut

**Core:**
- 28-30lb Particleboard, ANSI A208.1 Grade LD-1

**Fire Rating:**
- 1-3/4" Thickness 20 Minute Rated*

**Faces:**
- Raw only Lauan (Okume) 2 Ply, 8/0 Max length.
- Raw only RN Birch 2 Ply, MDF Back, 1/64" Face Veneer, 8/0 Max length
- Raw only PS Red Oak 2 Ply, MDF Back, 1/64" Face Veneer, 8/0 Max length
- Raw MDF Single Ply, 10/0 Max length
- Primed MDF Single Ply, 10/0 Max length
- Embossed Primed MDF Single Ply, 8/0 Max length
- Embossed Prefinished MDF (Legacy) Single Ply, 8/0 Max length

**Adhesive:**
- Type-1 PVA, Interior installation only.

**Machining:**
- To Specification

**Lites:**
- To Specification

**Louvers:**
- To Specification

**Acoustical Rating:**
- 33 STC Operable (With Pemko S773, 151, ADB 434APKL, S44)

**Warranty:**
- Standard Two year. See limited warranty for details.

**Description**
- E-1-3/8 = 1-3/8" Thick PBC
- E-20NL = 1-3/4" Thick PBC, Non Rated
- E-20NP = 1-3/4" Thick PBC, 20 Minute Neutral Pressure
- E-20B = 1-3/4" Thick PBC, 20 Minute Category B
- E-20A = 1-3/4" Thick PBC, 20 Minute Category A

**Recommended Use:**
- Residential and Light Commercial

*See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
# FLUSH "STANDARD" PARTICLEBOARD CORE

| Specifications: | 3, 5 Ply construction. Meets or exceeds industry standards of WDMA I.S.1; All 20 Minute doors have been tested in conformance to the following standards. ASTM-E-152, CSFM-43.7, CAN4-S104, NFPA-252, UBC-7-2-97, UL-10C |
| Lay Up Method: | Loose |
| Maximum Sizes: | Width - 4/0<br>Length - Depends on faces (See faces below for available length) |
| Thickness: | 1-3/8" and 1-3/4" ONLY |
| Stiles: | Paint Grade = FJ Hardwood, Raw Stain Grade = Matching Hardwood<br>Prefinished = SCL with matching edge banding over<br>P-lam = SCL with matching edge banding over<br>CAT-A = Special CAT-A Stile with matching edge banding over<br>Width = 1" Nominal, 13/16" Minimum after prefit size. |
| Rails: | 1-3/8" Thickness = MDF, 1-5/8" Nominal, 1" Minimum after undercut<br>1-3/4" Thickness = MDF, 2-1/4" Nominal, 1" Minimum after undercut |
| Core: | 28-30 lb Particleboard, ANSI A208.1 Grade LD-1 |
| Fire Rating: | 1-3/4" Thickness 20 Minute Rated* |
| Faces: | RN Birch 2 Ply, MDF Back, 1/64" Face Veneer, 8/0 Max length<br>PS Red Oak 2 Ply, MDF Back, 1/64" Face Veneer, 8/0 Max length<br>Raw MDF Single Ply, 10/0 Max length<br>Primed MDF Single Ply, 10/0 Max length<br>Primed MDO 2 Ply HDF Back, 10/0 Max length<br>Select Species Raw & Prefinished 2 Ply, 1/42" Face, 10/0 Max length<br>Plastic Laminate 2 Ply, 1/50" Face, 10/0 Max length. All laminates meet or exceeds NEMA standards. |
| Adhesive: | Type-1 PVA, Interior installation only. |
| Machining: | To Specification |
| Lites: | To Specification |
| Louvers: | To Specification |
| Acoustical Rating: | 33 STC Operable (With Pemko S773,151,ADB 434APKL44) |
| Warranty: | Standard two year. See limited warranty for details. |
| Recommended Use: | Residential and Light Commercial |

*See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
FLUSH "HEAVY DUTY" PARTICLEBOARD CORE

Specifications:
- 5 Ply construction. Meets or exceeds industry standards of WDMA I.S.1-A, WI Section 12, AWI Section 1300 Custom Grade (A Grade Faces), AWI Section 1300 Premium Grade (AA Grade Faces). All 20 Minute doors have been tested in conformance to the following standards. ASTM-E-152, CSFM-43.7, CAN4-S104, NFPA-252, UBC-7-2-97, UL-10C

Lay Up Method
- Bonded and Sand

Maximum Sizes:
- Width - 4/0
- Length - Depends on faces (See faces below for available length)

Thickness:
- 1-3/8" and 1-3/4" ONLY

Stiles:
- Paint Grade = FJ Hardwood, Raw Stain Grade = Matching Hardwood
- Prefinished = SCL with matching edge banding over
- P-lam = SCL with matching edge banding over
- CAT-A = Special CAT-A Stile with matching edge banding over
- Width = 1-3/8" Minimum

Rails:
- 1-3/8" Thickness = Wood or SCL 1-1/8" Minimum
- 1-3/4" Thickness = Wood or SCL 1-1/8" Minimum

Core:
- 34lb Particleboard, ANSI A208.1 Grade LD-2

Fire Rating:
- 1-3/4" Thickness 20 Minute Rated*

Faces:
- Primed MDO 2 Ply HDF Back, 10/0 Max length
- Select Species Raw & Prefinished 2 Ply, 1/42" Face, 10/0 Max length
- Plastic Laminate 2 Ply, 1/50" Face, 10/0 Max length. All laminates meet or exceed NEMA standards.

Adhesive:
- Type-1 PVA, Interior installation only.

Machining:
- To Specification

Lites:
- To Specification

Louvers:
- To Specification

Acoustical Rating:
- 33 STC Operable (With Pemko S773,151, ADB 434APKL, S44)

Warranty:
- Lifetime. See limited warranty for details.

Description:
- HD-1 3/8 = Heavy Duty 1-3/8" Thick PBC

Abbreviations:
- HD-20NL = Heavy Duty 1-3/4" Thick PBC, Non Rated
- HD-20NP = Heavy Duty 1-3/4" Thick PBC, 20 Minute Neutral Pressure
- HD-20B = Heavy Duty 1-3/4" Thick PBC, 20 Minute Category B
- HD-20A = Heavy Duty 1-3/4" Thick PBC, 20 Minute Category A

Recommended Use:
- Architectural

*See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
## Flush "Extra Heavy Duty" Structural Composite Core

**Specifications:**
5 Ply construction. Meets or exceeds industry standards of WDMA I.S.1-A, WI Section 12, AWI Section 1300 Custom Grade (A Grade faces), AWI Section 1300 Premium Grade (AA Grade faces). All 20 Minute doors have been tested in conformance to the following standards. ASTM-E-152
CSPM-43.7, CAN-4-S104, NFPA-252:UBC-7-2-97, UL-10C

**Lay Up Method:** Bond and Sand

**Maximum Sizes:**
- Width: 4/0
- Length: Depends on faces (See faces below for available length)

**Thickness:**
1-3/8” and 1-3/4” ONLY

**Stiles:**
- Paint Grade = FJ Hardwood
- Raw Stain Grade = Matching Hardwood
- Prefinished = SCL with matching edge banding over
- P-lam = SCL with matching edge banding over
- CAT-A = Special CAT-A Stile with matching edge banding over
- Width = 1-3/8” Minimum

**Rails:**
- 1-3/8” Thickness = Wood or SCL 1-1/8” Minimum
- 1-3/4” Thickness = Wood or SCL 1-1/8” Minimum

**Core:**
Structural Composite Lumber (Engineered), Grade LD-2

**Fire Rating:**
1-3/4” Thickness 20 Minute Rated*

**Faces:**
- Primed MDO 2 Ply HDF Back, 10/0 Max length
- Select Species Raw & Prefinished 2 Ply, 1/42” Face, 10/0 Max length
- Plastic Laminate 2 Ply, 1/50” Face, 10/0 Max length. All laminates meet or exceed NEMA standards.

**Adhesive:**
Type-1 PVA, Interior installation only.

**Machining:**
- To Specification

**Lites:**
- To Specification

**Louvers:**
- To Specification

**Acoustical Rating:**
33 STC Operable (With Pemko S773,151,ABD 434APKL,S44)

**Warranty:**
Lifetime. See limited warranty for details.

**Description:**
EHD-1-3/8 = Extra Heavy Duty 1-3/8” Thick SCL
EHD-20NL = Extra Heavy Duty 1-3/4” Thick SCL, Non Rated
EHD-20NP = Extra Heavy Duty 1-3/4” Thick SCL, 20 Minute Neutral Pressure
EHD-20B = Extra Heavy Duty 1-3/4” Thick SCL, 20 Minute Category B
EHD-20A = Extra Heavy Duty 1-3/4” Thick SCL, 20 Minute Category A

**Recommended Use:**
Architectural, Institutional

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*See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
## FLUSH "SOUND RETARDANT DOOR"

**Specifications:**
3 & 5 Ply construction. Meets or exceeds industry standards of WDMA I.S.1-A, WI Section 12, AWI Section 1300 Custom Grade (A Grade faces), AWI Section 1300 Premium Grade (AA Grade Faces).

**Lay Up Method:**
Bond and Sand

**Maximum Sizes:**
- Width: 4/0
- Length: 8/0

**Thickness:**
1-3/4" ONLY

**Stiles:**
- Paint Grade = FJ Hardwood, Raw Stain Grade = Matching Hardwood
- Prefinished = SCL with matching edge banding over
- P-lam = SCL with matching edge banding over
- Width = 1-3/8" Minimum

**Rails:**
1-3/4" Thickness = Wood, SCL 1-1/8" Minimum

**Core:**
- STC 42: RIGICOREGP
- STC 45: RIGICOREEX

**Fire Rating:**
N/A

**Faces:**
- Primed MDO 2 Ply HDF Back,
- Select Species Raw & Prefinished 2 Ply, 1/42" Face,
- Plastic Laminate 2 Ply, 1/50" Face. All laminates meet or exceed NEMA standards.

**Adhesive:**
Type-1 PVA, Interior installation only.

**Machining:**
To Specification

**Lites:**
STC 39 Max Lite kit 22x36 - See below for kit and glass details

**Recommended Use:**
Architectural, Institutional

**STC Opening Components**
- STC 39: Includes Pemko S773, 151 Threshold; ADB 434APKL Door Bottom; S44 Door Seal; LoPro BB1; 1" Laminated IGU
- STC 42: Includes Zero International 475 Gasket; 119WB Cushion Spring; 566A threshold.
- STC 45: Includes Zero International 475 Gasket; 119WB Cushion Spring; 566A threshold.

*See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
FLUSH MINERAL CORE 45-60-90 MINUTE RATED

Specifications:
3, 5 Ply construction. Meets or exceeds industry standards of WDMA I.S.1-A, WI Section 12, AWI Section 1300. Testing Standards ASTM-E-152, CSFM 43.7 CAN4-S104, NFPA-252, UBC-7-2-97, UL10C

Lay Up Method: Bond and Sand

Maximum Sizes:
Width - 4/0
Length - Depends on faces (See faces below for available length)

Thickness: 1-3/4” Only

Stiles: Laminated Composite to wood (Georgia Pacific), Specific to rating
Edge banding veneer or plastic when matching edges required

Rails: Laminated Composite to wood (Georgia Pacific), Specific to rating
Width = 1” Minimum

Core: Gypsum Mineral

Fire Rating: 45-60-90 Minute Rated

Faces:
Light Commercial
- RNT Birch 2 Ply, MDF Back, 1/64” Face Veneer, 8/0 Max length.
- PS Red Oak 2 Ply, MDF Back, 1/64” Face Veneer, 8/0 Max length.
- Raw MDF Single Ply, 10/0 Max length
- Primed MDF Single Ply, 10/0 Max length
- Embossed Primed MDF Single Ply, 8/0 Max length
- Embossed Prefinished MDF (Legacy) Single Ply, 8/0 Max length

Architectural
- Primed MDO 2 Ply HDF Back, 10/0 Max length
- Select Species Raw & Prefinished 2 Ply, 1/42” Face, 10/0 Max length
- Plastic Laminate 2 Ply, 1/50” Face, 10/0 Max length. All laminates meet or exceed NEMA standards.

Adhesive: Type-1 PVA, Interior installation only.

Machining: To Specification

Lites: To Specification

Louvers: To Specification

Temp Rise: 30 Minutes 250 Degrees maximum.

Acoustical Rating: 30 STC Operable (With seal / Pemko S773)

Warranty: Lifetime. See limited warranty for details.

Description
MC-45NP = Mineral Core 45 Minute, Neutral Pressure
MC-45B = Mineral Core 45 Minute, Category B
MC-45A = Mineral Core 45 Minute, Category A
MC-60NP = Mineral Core 60 Minute, Neutral Pressure
MC-60B = Mineral Core 60 Minute, Category B
MC-60A = Mineral Core 60 Minute, Category A
MC-90NP = Mineral Core 90 Minute, Neutral Pressure
MC-90B = Mineral Core 90 Minute, Category B
MC-90A = Mineral Core 90 Minute, Category A

Recommended Use: Architectural, Light Commercial

*See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
# MOLDED PANEL MINERAL CORE 45-60 MINUTE RATED

| Specifications: | 3 Ply construction. Meets or exceeds industry standards of WDMA I.S.1 Testing Standards ASTM-E-152, CSFM 43.7, CAN4-S104, NFPA-252, UBC-7-2-97, UL10C |
| Lay Up Method: | Bond and Sand |
| Maximum Sizes: | Width - 3/0  | Length - 7/0 |
| Thickness: | 1-3/4” ONLY |
| Stiles: | Laminated Composite to wood (Georgia Pacific), Specific to rating* |
| Rails: | Laminated Composite to wood (Georgia Pacific), Specific to rating* Width = 1” Minimum |
| Core: | Gypsum Mineral |
| Fire Rating: | 45-60 Minute Rated* |
| Faces: | Primed Molded Panel Single Ply |
| Adhesive: | Type-1 PVA, Interior installation only. |
| Machining: | To Specification |
| Lites: | N/A |
| Louvers: | N/A |
| Temp Rise: | 30 Minutes 250 Degrees maximum. |
| Acoustical Rating: | 20 STC Operable (No Seal) 29 STC Operable (With seal / Pemko S773) |
| Warranty: | Standard Two year. See limited warranty for details. |
| Description | MC-45NP = Mineral Core 45 Minute, Neutral Pressure |
| Abbreviations: | MC-45B = Mineral Core 45 Minute, Category B |
| | MC-45A = Mineral Core 45 Minute, Category A |
| | MC-60NP = Mineral Core 60 Minute, Neutral Pressure |
| | MC-60B = Mineral Core 60 Minute, Category B |
| | MC-60A = Mineral Core 60 Minute, Category A |
| Recommended Use: | Light Commercial |

*See fire door specifications section in catalogue for details on sizes, hardware and construction limitations.
WOOD VISION LITE KITS
NON RATED AND 20 MINUTE

PRODUCT FEATURES:

Use
For use with 20 Min. Fire Doors and non rated doors.

Species Available
Ash, Birch, Cherry, Mahogany, Maple, Red Oak, Walnut and White Oak.

Sizes
Various sizes available in full-inch increments up to maximum area / size listed below.

Listed
ITS-WH Listed.

Glass size
Glass should be cut 1/16” less in length and width than wood beaded lite size ordered.

Maximum Cutout
1296 sq. inches. Maximums: 30” width, 54” height.

Maximum Visible Glass Size
1238 sq. inches.

Parts List
(1) one instruction sheet.
(8) eight prefit wood beads with nails pre-fitted into the lite opening.
(1) one tube of silicone caulk or glazing tape. (EPDM or Norton V990) supplied with glass by glazers.
(1) one piece of 1/4” fire rated glass per NFPA 80 labeled for Fire Protection Rating. Supplied by glazers.

Note: Glass should be cut 1/8” less in length and width than the lite opening size and measure 1/4” in thickness.
WOOD VISION LITE KITS
45 - 60 - 90 MINUTE

PRODUCT FEATURES:

Use
For use with 45, 60, AND 90 Min. rated doors.

Species Available
Maple, White Oak, Red Oak, Cherry, Mahogany, and Walnut.

Sizes
Maximum exposed dimension.

- 45 min = 1296 sq. inches
- 60/90 min = 100 sq. inches

Listed
ITS-WH Listed.

Glass size
Glass should be cut 1/8" less in length and width than wood vision kit ordered.
METAL VISION LITE KITS

STANDARD PRODUCT FEATURES

- **MATERIAL**: 26 GA. Cold Rolled Steel
- **FINISH**: Grey Primer, Beige or Bronze Baked Enamel
- **INSTALLATION**: Our most popular product is easy to install and provides a low profile, flush to the door look. Uses 1 3/4” sheet metal screws that pass through the door cutout, and fastens to the opposite side of the vision frame, thus eliminating the need to drill the door for thru bolts and saving installation time and labor. It also leaves the corridor side of the frame free of fasteners for added security and a cleaner, more aesthetically pleasing appearance.
- **DOOR THICKNESS**: For 1 3/4” Wood or Metal Doors.
- **GLAZING**: Should be 1/4”, 3/16” or 5/16” fire and/or safety rated with U.L. and/or W.H.I. classification markings. Nominal glazing space of 3/8” allows for glazing tape to be used on both sides of the glass.
- **AESTHETICS**: Tight molded corners, beveled glass stop and low profile, provide a clean tapered look.
- **IMPORTANT**: Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.
- **NOTE**: For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

OPTIONAL FEATURES

- **MATERIAL**: #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized Coated Hot Dipped, or Electro Plated Mill Finish Aluminum.(Not Fire Rated).
- **FINISH**: Custom Baked Enamel Colors (as per sample chip supplied). Plated Finishes to match the lock, hinges and closer.
- **FASTENERS**: Special Security Screw Fasteners. See Page 31, this section.
- **SPECIALS**: Fractional Sizes, Lead Lined for X-ray applications. For Special Glass or Door thicknesses see FGS-63 or LoPro™-63.
- **For Mullions see (LoPro™-G, FGS-75-G or BFL-123-G).**
- **HM CLIP**: Replaces the need for reinforcing channel in the door cutout, see page 32 this section.

FIRE RATINGS (w/ U.L. & W.H.I. classification markings) Positive Pressure

- **20 MINUTE**: Approved listing at 3204 sq.in. visible lite (max. width 36”, max. height 89”).
- **45/60 MINUTE**: Approved listing at 2772 sq.in. visible lite (max. width 36”, max. height 77”).
- **90 MINUTE**: Approved listing at 1296 sq.in. visible lite (max. width 36”, max. height 54”).
- **3 Hour**: Approved listing at 100 sq.in. visible lite (max. width 12”, max. height 33”).
- **Must be used with FIRELITE Plus or NT and Fire listed glazing tape and be used in appropriately tested door assembly.

**BS 476 22**
- Timber Doors - 30 min. and 1 hour. Tested to 254mm x 762mm
- Steel Doors - 2 hours (4 hours actual). Tested to 913mm x 913mm

**EN-1634**
- 30/60 min. Integrity and Insulation - Indicative Testing
**METAL LOUVER KITS**

**STANDARD PRODUCT FEATURES**

- **MATERIAL**: 18 GA. Cold Rolled Steel - Frame. 22 GA. Cold Rolled Steel - Louver Blades.
- **FINISH**: Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION**: Our top selling louver is preferred because of its ease of installation. Use #8 x 3/4" phillips screw that fastens auxiliary frame to the louver core, thru the cutout in the door, thus eliminating the need to drill holes in the door for thru bolts. This method saves time and installation labor and leaves the corridor side of the frame free of fasteners for added security and a cleaner aesthetic appearance.
- **DOOR THICKNESS**: For 1 3/4" Door (1 3/8", 2" and 2 1/8" are available. Louver core may be offset).
- **AESTHETICS**: Tight mitered corners, no visible welds, countersunk mounting holes and corridor side of frame free of fasteners make for a clean, streamlined appearance.
- **USES**: Anywhere air flow is required thru a door.
- **FREE AIR FLOW**: 50% Free Area.

**OPTIONAL FEATURES**

- **MATERIAL**: #304 or #316 Stainless Steel, #4 Finish(Satin). Galvanized (Coil, Hot Dipped or Electro Plated), Mill Finish or Anodized Aluminum (#5052 Alloy). 16 gauge Cold Rolled Steel or Stainless Steel.
- **FINISH**: Custom Baked Enamel Colors (as per sample paint chip, supplied by customer).
- **FASTENERS**: Special Security Screw Fasteners. See Page 14 this section.
- **SPECIALS**: Fractional sizes (frame dimension is increased to accommodate odd size). Mesh insect screens are loose, attached or framed. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.) For detail drawings see pages 12 and 13 this section.

**FIRE RATINGS**

- **AFDL and AFDL-T are not fire rated.**

- **NOTE**: For exterior use, high humidity or Sell Air application, product must be Galvanized or Stainless Steel.
STC METAL VISION LITE KITS

STANDARD PRODUCT FEATURES

- **MATERIAL:** 20 GA. Cold Rolled Steel.
- **FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
  
  **CAUTION:** Sound Sealing Tape should not be exposed to a heat treating process from post factory applied finishes, such as powder coating.

- **INSTALLATION:** Our most popular product is easy to install and provides a low profile, flush to the door look. Uses 1 3/4" sheet metal screws that pass through the door cutout, and fastens to the opposite side of the vision frame. Vision frame comes with sound sealing tape applied to the underside perimeter of both frame sides.

- **DOOR THICKNESS:** For 1 3/4" Wood or Metal Doors.
- **GLAZING:** Glass is supplied with OT Glazing Tape for both sides.
- **AESTHETICS:** Tight mitered corners, beveled glass stop and low profile, provide a clean tapered look.

- **IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

- **NOTE:** For Exterior use, High Humidity or SailAir application, product must be Galvanized or Stainless Steel.

OPTIONAL FEATURES

- **MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Coil, or Zinc Plated).
- **FINISH:** Custom Baked Enamel Colors (as per sample chip supplied).
- **FASTENERS:** Special Security Screw Fasteners, See Page 56, this section.
- **SPECIALS:** Fractional Sizes
- **HM CLIP:** Replaces the need for reinforcing channel in the door cutout, see page 57 this section.

FIRE RATINGS (w/ U.L. classification markings) Positive Pressure

- See appropriate Glazing Product Tech Data page

SOUND RATINGS

- **LoPro-STC with 1/4" SAFE-Wire:** STC - 38
- **LoPro-STC with 3/16" FireLite NT:** STC - 35
- **LoPro-STC with 5/16" FireLite Plus:** STC - 38
- **LoPro-STC with 1" FireLite Plus IGU:** STC - 42
- **LoPro-STC with 7/8" Pyrostop 60-101:** STC - 41
- **LoPro-STC with 1" Laminated IGU:** STC - 42 (Safety Rated Only)
- **LoPro-STC with 1" Tempered IGU:** STC - 35 (Safety Rated Only)

**TESTED SIZE:** 24" x 36" CUTOUT / ASSEMBLY

**TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2205-04.

Testing conducted at Western Electro - Acoustic Laboratory, Santa Claria, CA.

* Fire Rated - see Glazing Section for ratings and maximum allowable sizes
The LEED (Leadership in Energy and Environmental Design) Green Building Rating System was originally developed by the U.S. Green Building Council (USGBC) to provide a recognized standard for the construction industry to assess the environmental sustainability of building designs.

ABS Manufacturing is committed to engineering our manufacturing processes so that we may assist our customers in achieving their LEED certification rating. The chart below lists all of our product lines and what total LEED credits can be earned.

### TECHNICAL DATA

<table>
<thead>
<tr>
<th>LEED Credit</th>
<th>LEED Criteria</th>
<th>Product Lines - Standard Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR 4</td>
<td>Recycled Content: 10% Pre-Consumer</td>
<td>Hollow: YES; Economy PBC Core: YES; Standard PBC Core: YES; Heavy Duty PBC Core: YES; Extra Heavy Duty: No; SCL Core: No; Mineral Core: No; STC Core: No</td>
</tr>
<tr>
<td>MR 4</td>
<td>Recycled Content: 20% Pre-Consumer</td>
<td>Hollow: YES; Economy PBC Core: YES; Standard PBC Core: YES; Heavy Duty PBC Core: YES; Extra Heavy Duty: No; SCL Core: No; Mineral Core: No; STC Core: No</td>
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<tr>
<td>MR 5</td>
<td>Regional materials: 10% if within 500 miles</td>
<td>Hollow: YES*; Economy PBC Core: YES*; Standard PBC Core: YES*; Heavy Duty PBC Core: YES*; Extra Heavy Duty: YES*; SCL Core: NO; Mineral Core: Yes; STC Core: No</td>
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<tr>
<td>MR 5</td>
<td>Regional materials: 20% if within 500 miles</td>
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<td>MR 6</td>
<td>Rapidly Renewable Materials:</td>
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<td>MR 7</td>
<td>FSC Certified Wood:</td>
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</tbody>
</table>

*Location of project determines eligibility. Extracted and Manufactured, Harvested or Recovered within 500 mile radius of project site.

**IEQ 4.1 & 4.2 applies to adhesives, sealants, paints and coatings applied at project site.
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<thead>
<tr>
<th>LEED Credit</th>
<th>LEED Criteria</th>
<th>Product Lines - With Special Ordered Materials *Minimum quantities and special lead times will apply</th>
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<tr>
<td></td>
<td>Materials &amp; Resources</td>
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</tr>
<tr>
<td>MR 4</td>
<td>Recycled Content: 20% Pre-Consumer</td>
<td>YES</td>
</tr>
<tr>
<td>MR 5</td>
<td>Regional materials: 10% if within 500 miles</td>
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<td>MR 5</td>
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<td>Rapidly Renewable Materials:</td>
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<tr>
<td>MR 7</td>
<td>FSC Certified Wood:</td>
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</table>

*Location of project determines eligibility. Extracted and Manufactured, Harvested or Recovered within 500 mile radius of project site.

Indoor Environmental Quality

<table>
<thead>
<tr>
<th>IEQ 4.1</th>
<th>Low Emitting Materials: Adhesives &amp; Sealants</th>
<th>YES**</th>
<th>YES**</th>
<th>YES**</th>
<th>YES**</th>
<th>YES**</th>
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<tbody>
<tr>
<td>IEQ 4.2</td>
<td>Low Emitting Materials: Paints &amp; Coatings</td>
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<td>IEQ 4.4</td>
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<td>IEQ 9</td>
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</table>

**IEQ 4.1 & 4.2 applies to adhesives, sealants, paints and coatings applied at project site.