# medite® FR2

SierraPine's flame retardant Medite FR2 is designed for applications where Class 1 flame retardant material is required. FR2 leads the industry with its low flame spread and smoke development.

*Public reception area*

During the manufacturing process an additive is blended with the wood fibers to provide flame-retardant properties throughout the board, from the core to the surface. This technique provides better protection than topical flame-retardant applications. Medite FR2 can be machined, cut, sanded or grooved at a later date without compromising its flame retardant properties.

Flame retardant FR2 is especially effective when used in applications in schools, libraries, hospitals, theatres, office buildings, public buildings, medical facilities, laboratories, and museums.

### Environmental Certification

Medite FR2 is SCS Certified for 100% post-industrial/pre-consumer recycled wood fiber.

### Performance Certification

U/L certified to U.S. & Canadian Class 1 standards.

- Flame Spread rating – 20
- Smoke Development rating – 20

### Features & Benefits

- Finishing – can be painted, laminated, or veneered. When choosing a finish, confirm that the product will not react with or neutralize the Class 1 flame spread classification of FR2. Laminating information available upon request
- Exceptional machining and low toolwear
- Fastening – FR2 readily accepts and holds staples, screws, and other wood fastening hardware

### Technical Data – Medite FR2 (Typical data when tested to ASTM D 1037-96a Part A)

| Property | Thicknesses | Units |
|---|---|---|
| **Imperial Units** | **⅜" – 1"** | |
| Density | 48 – 46 | Lb/ft³ |
| Internal Bond | 130 | Lb/in² |
| Modulus of Rupture | 4,000 | Lb/in² |
| Modulus of Elasticity | 550,000 | Lb/in² |
| Hardness | 1,200 | Lbs, Janka ball |
| Screw Holding, Face | 350 | Lbs req'd to pull 1" #10 sheet metal screw |
| Screw Holding, Edge | 275 | Lbs req'd to pull 1" #10 sheet metal screw |
| **Metric Units** | **9.5mm – 25.4mm** | |
| Density | 769 – 737 | Kg/m³ |
| Internal Bond | .90 | N/mm² |
| Modulus of Rupture | 31 | N/mm² |
| Modulus of Elasticity | 3792 | N/mm² |
| Hardness | 545 | Kg Janka ball |
| Screw Holding, Face | 159 | Kg req'd to pull 25mm #10 sheet metal screw |
| Screw Holding, Edge | 125 | Kg req'd to pull 25mm #10 sheet metal screw |
| **Other Data** | | |
| Water Absorption | 31 – 17 | 24-hour soak, Ave. % |
| Thickness Swell | 12 – 5 | 24-hour soak, Ave. % |
| Linear Expansion | .32 – .27 | % dimensional change in length & width due to humidity change from 50% - 80% RH |
| Flame Spread Index | 20 | Indicative Test result. When tested to UL 723 |
| Smoke Development Index | 20 | Indicative Test result. When tested to UL 723 |
| Thickness Tolerance | ± .005"<br>± .005" | Average from nominal<br>Deviation from average |

**Storage & Conditioning**

- Storage – Store indoors on flat, level surface with adequate support to prevent sagging.
- Conditioning – For best results, FR2 should be conditioned to the environment for 48 – 72 hours prior to installation.
- For more details on working with MDF, consult "MDF From Start to Finish," published by the Composite Panel Association, www.pbmdf.com.

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### LEED Credits Supported

Contributes to achieving Credits for:

- Material & Resources – 4.1 & 4.2 and 5.1 & 5.2

### Applications

- Paneling
- Sheathing
- Display panels
- Doors
- Shelving

### How to Specify

Industrial Grade MDF, that meets Surface Burning Characteristics in accordance with ANSI/UL 723, ASTM E84-01, CAN/ULC-S102M with a Flame and Smoke Development of 20. New York City approved MEA 244-03-M.

### Limitations

Medite FR2 is not suitable for external or structural applications.

*Elevator lobby, New York Dormitory Authority*



06164/SIE
Buyline 9640

SierraPine LTD
COMPOSITE SOLUTIONS

# Green with Creativity

## SierraPine Specialty MDF Panels Medite II, Medex, Medite FR2

Your design is your signature - don't compromise on any building elements. Since 1989, SierraPine has been a leader in the sustainable building market with our environmentally friendly Medex, Medite II and Medite FR2 composite panels.

### Environmental Stewardship

SierraPine continues our long-term commitment to the responsible use of renewable resources. Among the first in the industry to receive certification at all of our manufacturing facilities, SierraPine is recognized by the following independent third-parties for using 100% recovered and recycled wood fiber content in all of our composite wood panel products, as well as being certified for the use of formaldehyde-free resin in our Medite II and Medex products.

- Composite Panel Association's Environmentally Preferable Product (EPP) Grademark Certification Program
- Scientific Certification Systems (SCS) Certification
- LEED Building Rating System by USGBC

### Medite II

Interior applications – SCS and EPP Certified for **no-added formaldehyde** and for 100% recovered and recycled fiber.

### Medex

Interior moisture applications – SCS and EPP Certified for **no-added formaldehyde** and for 100% recovered and recycled fiber.

### Medite FR2

Flame retardant applications – SCS Certified for 100% recovered and recycled fiber, UL Class 1 certified for smoke and flame spread.

### LEED Credits Supported:

Material and Resources 4.1, 4.2, 5.1, 5.2
Indoor Environmental Quality 4.4

### Collaborative for High Performance Schools (ChiPs):

Meet Materials Specifications for VOC emissions section 01350.

### LEED Credits Supported:

Material and Resources 4.1, 4.2

### Listed in the following Green Product Guides:

- OIKOS
- "Green Spec Directory"
- National Park Service, Department of Conservation
- Austin, Texas, Green Builder Program
- "Prescriptions for a Healthy House"
- Alameda County Green Building Resource Guide

### Project Resume

**LEED Buildings**

- New York Department of Environmental Conservation
- East End Capitol Project – Sacramento, California
- The Solaire – Battery Park, New York

**Museums**

- J. Paul Getty Museum
- Metropolitan Museum of Art

**Public Buildings**

- Mayo Clinic Nursery
- San Francisco Courthouse & Public Library Schools
- Harvard Library
- University of British Columbia, Choi Institute

*Board Room, East End Capitol Project, Sacramento, CA*

MEMBER CPA
ASSOCIATE MEMBER
AWI ARCHITECTURAL WOODWORK INSTITUTE
CERTIFIED
ENGINEERED WOOD

# medite® II

*East End Capitol Project conference room*

Medite II is a no-added formaldehyde MDF panel engineered for non-structural applications and can be used in place of sanded plywood and solid wood. This panel provides the flexibility of a composite panel with the emissions of solid wood.

For LEED buildings or other projects where indoor air quality (IAQ) is a concern, no-added formaldehyde Medite II is the ideal choice as it surpasses all current international emission standards. Medite II was used extensively in the nation's first sustainable residential high-rise: the Solaire in Manhattan.

## Environmental Certification

Medite II is SCS and EPP Certified for no-added formaldehyde and 100% recovered and recycled wood fiber.

## Features & Benefits

- Standard wood product finishing processes apply to Medite II
- Finishing – can be painted, laminated, and veneered
- Exceptional machining and low toolwear
- Fastening – Medite II readily accepts and holds staples, screws, and other wood fastening hardware

## Technical Data – Medite II (Typical data when tested to ASTM D 1037-96a Part A)

| Property | Thicknesses | | Units |
|---|---|---|---|
| **Imperial Units** | **⅜" – ¾"** | **13/16" – 1 ¼"** | |
| Density | 48 | 47 – 44 | Lb/ft³ |
| Internal Bond | 130 | 100 | Lb/in² |
| Modulus of Rupture | 5,000 | 4,700 | Lb/in² |
| Modulus of Elasticity | 500,000 | 500,000 | Lb/in² |
| Hardness | 1,150 | 1,000 | Lbs, Janka ball |
| Screw Holding, Face | 350 | 300 | Lbs req'd to pull 1" #10 sheet metal screw |
| Screw Holding, Edge | 275 | 225 | Lbs req'd to pull 1" #10 sheet metal screw |
| **Metric Units** | **9.5 – 19.1mm** | **20.6 – 31.8mm** | |
| Density | 769 | 752 – 700 | Kg/m³ |
| Internal Bond | 0.90 | 0.69 | N/mm² |
| Modulus of Rupture | 41.4 | 32 | N/mm² |
| Modulus of Elasticity | 4137 | 3447 | N/mm² |
| Hardness | 522 | 454 | Kg Janka ball |
| Screw Holding, Face | 159 | 136 | Kg req'd to pull 25mm #10 sheet metal screw |
| Screw Holding, Edge | 125 | 102 | Kg req'd to pull 25mm #10 sheet metal screw |
| **Other Data** | | | |
| Water Absorption | 12 – 6 | 6 – 5 | 24-hour soak, Ave. % |
| Thickness Swell | 14 – 5 | 5 – 3 | 24-hour soak, Ave. % |
| Linear Expansion | .32 – .27 | .26 – .20 | % dimensional change in length & width due to humidity change from 50% - 80% RH |
| Moisture Content | 4 – 6 | 4 – 6 | Avg. %, oven-dry basis |
| Thickness Tolerance | ± .005" or<br>± .005" or | ± .005"<br>± .005" | Average from nominal<br>Deviation from average |

### Storage & Conditioning

- Storage – Store indoors on flat, level surface with adequate support to prevent sagging.
- Conditioning – For best results, Medite II should be conditioned to the environment for 48 – 72 hours prior to installation.
- For more details on working with MDF, consult "MDF From Start to Finish," published by the Composite Panel Association, www.pbmdf.com.

## LEED Credits Supported

Contributes to achieving Credits for:

- Material & Resources – 4.1 & 4.2 and 5.1 & 5.2
- Indoor Environmental Quality – 4.4

## Applications

- Architectural woodwork
- Cabinets
- Paneling
- Mouldings
- Display cases

*Mail Room*

## How to Specify

Industrial Grade Medium Density Fiberboard (MDF), manufactured with a formaldehyde-free binder and which meets the requirements of ANSI A208.2-2002.

## Limitations

Medite II is not suitable for structural applications or where moisture may be present.

# medex®

**06164/SIE**
**Buyline 9640**

*Employee breakroom*

Medex is a no-added formaldehyde, moisture resistant MDF panel engineered for interior high moisture areas. Used in place of sanded plywood and solid wood in non-structural applications, Medex gives you the versatility of a composite panel with the emissions of solid wood.

For LEED projects or other buildings where indoor air quality (IAQ) is a concern, no-added formaldehyde Medex is the ideal choice as product emissions meet and exceed international standards.

## Environmental Certification

Medex is SCS and EPP Certified for no-added formaldehyde and 100% recovered and recycled wood fiber.

## Features & Benefits

- Medex is especially suitable in interior applications where moisture is a concern
- Standard wood product finishing processes apply to Medex
- Finishing – can be painted, laminated, veneered
- Exceptional machining and low toolwear
- Fastening – Medex readily accepts and holds staples, screws, and other wood fastening hardware

## Technical Data – Moisture Resistant* Medex

(Typical data when tested to ASTM D 1037-96a Part A)

| Property | Thicknesses | | Units |
|---|---|---|---|
| **Imperial Units** | **⅜" – ¾"** | **13/16" – 1 ¼"** | |
| Density | 49 – 48 | 47 – 44 | Lb/ft³ |
| Internal Bond | 200 | 165 | Lb/in² |
| Modulus of Rupture | 6,000 | 4,500 | Lb/in² |
| Modulus of Elasticity | 600,000 | 500,000 | Lb/in² |
| Hardness | 1,200 | 1,000 | Lbs, Janka ball |
| Screw Holding, Face | 350 | 300 | Lbs req'd to pull 1" #10 sheet metal screw |
| Screw Holding, Edge | 275 | 225 | Lbs req'd to pull 1" #10 sheet metal screw |
| **Metric Units** | **9.5 – 19.1mm** | **20.6 – 31.8mm** | |
| Density | 785 – 769 | 752 – 700 | Kg/m³ |
| Internal Bond | 1.38 | .69 | N/mm² |
| Modulus of Rupture | 41.4 | 32 | N/mm² |
| Modulus of Elasticity | 4137 | 3447 | N/mm² |
| Hardness | 544 | 454 | Kg Janka ball |
| Screw Holding, Face | 159 | 136 | Kg req'd to pull 25mm #10 sheet metal screw |
| Screw Holding, Edge | 125 | 102 | Kg req'd to pull 25mm #10 sheet metal screw |
| **Other Data** | | | |
| Water Absorption | 14 – 5 | 6 – 5 | 24-hour soak, Ave. % |
| Thickness Swell | 8 – 3 | 3 – 2 | 24-hour soak, Ave. % |
| Linear Expansion | .32 – .27 | .26 – .20 | % dimensional change in length & width due to humidity change from 50% - 80% RH |
| Moisture Content | 4 – 6 | 4 – 6 | Avg. %, oven-dry basis |
| Thickness Tolerance | ± .005" or<br>± .005" or | ± .005"<br>± .005" | Average from nominal<br>Deviation from average |

*** The term "moisture resistant" as used in this context indicates compliance with ASTM D1037-96A six-cycle accelerated aging test.**

### Storage & Conditioning

- Storage – Store indoors on flat, level surface with adequate support to prevent sagging.
- Conditioning – For best results, Medex should be conditioned to the environment for 48 – 72 hours prior to installation.
- For more details on working with MDF, consult "MDF From Start to Finish," published by the Composite Panel Association, www.pbmdf.com.

## LEED Credits Supported

Contributes to achieving Credits for:

- Material & Resources – 4.1 & 4.2 and 5.1 & 5.2
- Indoor Environmental Quality – 4.4

## Applications

- Countertops
- Window sills
- Bathroom cabinets and woodwork
- Bow & bay window head and seat boards
- Display cases
- Raised panel door inserts

## How to Specify

Industrial Grade Medium Density Fiberboard (MDF), manufactured with a formaldehyde-free binder and which meets the requirements of ANSI A208.2-2002.

## Limitations

Medex is not suitable for structural applications, exterior siding or exterior trim.

## Finishing Instructions

Medex Finishing Guidelines for commercial signage are available through SierraPine, either by calling (800) 676-3339 or via our website at www.sierrapine.com Click on MDF, then Medex for a downloadable PDF.

## Warranty

SierraPine Limited Warranty is available upon request.