

BASF UL Listed Hourly-rated Designs featuring WALLTITE® and ENERTITE® Series Spray Foams

Fire-resistance rated construction designs are required in some residential single-family home, multi-family structures (aka MDU or Multi-dwelling units), and most commercial building applications to separate adjacent spaces, safeguarding against the spread of fire to, within, or from other buildings. The use of foam plastics including spray polyurethane foam (SPF) in these designs requires specific testing and compliance to be utilized in a code-compliant manner. This is specifically called out in Chapter 26 of the International Building Code (IBC), Section R316 of the International Residential Code (IRC), and Part 3 of the National Building Code of Canada.

The fire resistance rating is the amount of time an assembly or component maintains the ability to withstand fire exposure. BASF holds a variety of fire-resistance rated assemblies with times ranging from 45-min to 4-hours in the Underwriters Laboratories (UL) Directory. **There are a total of 26 UL-rated wall assemblies and 16 floor-ceiling assemblies listed for BASF, as outlined on the following pages.**

Per the Underwriters Laboratories general information for fire-resistance ratings - ANSI / UL263 / CAN/ULC-S101 / ASTM E119:

- “This category covers fire-rating certifications based upon the test method and acceptance criteria in ANSI / UL 263 (ASTM E119), "Fire Tests of Building Construction and Materials." The ratings are expressed in hours and are applicable to floor-ceilings, roof-ceilings, beams, columns, walls and partitions. When a test assembly complies with the acceptance criteria, a detailed description of the assembly, its performance in the fire test, and other pertinent details such as specification of materials, certification coverage and alternate assembly details, are included in a Report for the test sponsor. Sponsors may provide copies of the complete Test Report upon request. The Report also contains a summary of important features of the rated assembly. These summaries are also published in the UL Directory. Variations from the published specifications should be considered as not being investigated by UL.”

The full listing and UL certification details for all BASF Corporation SPF systems can be found at this [UL Directory Link](#). Search for “CCVW” under the UL Category Code and “R9865” under the UL File Number to find the complete list and details. On the following pages of this document, you will find useful summary tables, showing broad categories of approvals for multiple products.

The currently available BASF spray polyurethane foam insulation products, tested in various UL-rated assemblies, include:

- WALLTITE® Series - Closed-cell, medium density, low-global warming potential insulating air barrier materials:
 - WALLTITE Max - US formula for residential and commercial construction with NFPA 285 assembly approvals
 - WALLTITE One - US formula for residential and commercial construction with NFPA 285 assembly approvals
 - WALLTITE V.5 - Canada formula for residential / commercial construction with CAN/ULC-S134
- ENERTITE® Series - Open-cell, ½ pound per cubic foot insulation systems:
 - ENERTITE G – No-mix resin, high-yield open-cell foam system with GREENGUARD GOLD approvals
 - ENERTITE Max – Mixed resin, high-yield open-cell foam system with GREENGUARD GOLD approvals

There are some specific and critical distinctions about these credentials, including:

- Approvals for fire resistance (ANSI / UL263 / CAN/ULC-S101 / ASTM E119) do not provide approvals for NFPA 285.
 - NFPA 285 testing and credentials are separate and additional IBC fire test requirements for SPF used in commercial applications.
- Approvals for "symmetrical" fire exposure are acceptable for demising/partition walls between units, e.g. between apartments (aka "party walls").
- For exterior walls, often the fire resistance rating is required from an Interior Exposure, but the ultimate requirements are determined by many characteristics of the building.

Additional information about BASF products and code compliance is found in BASF ICC-ESRs, Intertek CRRs and ULC ERs.

Tech Tip

UL Fire-Resistant Rated Construction Assemblies



The tables below summarize the high points of the BASF assemblies, with UL design numbers and links for easy reference (UL Prospector login required):

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UL Directory - ANSI / UL263 / CAN/ULC-101 / ASTM E119

Wood Stud Assembly #	Currently Available BASF Systems Approved	Load Bearing or Non-Load Bearing	Fire Rating	Fire Exposure	SPF Location
U301	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	2 hr	Symmetrical	Stud Cavity
U305	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	1 hr	Symmetrical	Stud Cavity
W307	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	1 hr to 2 hr	Symmetrical	Stud Cavity
U397	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing or Non-Bearing	1 hr	Asymmetrical	Exterior or Stud Cavity
V313	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing or Non-Bearing	1 hr	Asymmetrical	Stud Cavity
Partition (Wood Stud) Wall Assembly #	Currently Available BASF Systems Approved	Load Bearing or Non-Load Bearing	Fire Rating	Fire Exposure	SPF Location
V324	Enercite® Series	Bearing or Non-Bearing	2 hr	Symmetrical	Stud Cavity
V342	Enercite® Series	Bearing or Non-Bearing	2 hr	Symmetrical	Stud Cavity
V352	Enercite® Series	Bearing or Non-Bearing	2 hr	Symmetrical	Stud Cavity
Steel Stud Assembly #	Currently Available BASF Systems Approved	Load Bearing or Non-Load Bearing	Fire Rating	Fire Exposure	SPF Location
U411	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	2 hr	Symmetrical	Stud Cavity
U419	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	1 hr to 4 hr	Symmetrical	Stud Cavity
U423	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	3/4 hr to 2 hr	Symmetrical	Stud Cavity
U424	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing or Non-Bearing	3/4 hr to 2 hr	Asymmetrical	Exterior or Stud Cavity
U460	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	1 hr	Asymmetrical	Exterior
U465	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	1 hr	Symmetrical	Stud Cavity
U4103	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	1 to 4 hr	Symmetrical	Stud Cavity
V499	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing or Non-Bearing	3/4 hr to 2 hr	Asymmetrical	Exterior or Stud Cavity
W496	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	3/4 hr to 2 hr	Symmetrical	Stud Cavity
Precast Assembly #	Currently Available BASF Systems Approved	Load Bearing or Non-Load Bearing	Fire Rating	Fire Exposure	SPF Location
W481	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® V.5	Non-Bearing	1 and 2 hr	Asymmetrical	Precast Panel
Masonry (Brick & Precast) Assembly #	Currently Available BASF Systems Approved	Load Bearing or Non-Load Bearing	Fire Rating	Fire Exposure	SPF Location
U902	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	4 hr	Asymmetrical	Masonry Cavity
Wood Studs with Brick Veneer Assembly #	Currently Available BASF Systems Approved	Load Bearing or Non-Load Bearing	Fire Rating	Fire Exposure	SPF Location
V306	Enercite® Series Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing or Non-Bearing	1 hr	Asymmetrical	Stud Cavity

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Tech Tip

UL Fire-Resistant Rated Construction Assemblies



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UL Directory - ANSI / UL263 / CAN/ULC-101 / ASTM E119

Steel Studs with Brick Veneer Assembly #	Currently Available BASF Systems Approved	Load Bearing or Non-Load Bearing	Fire Rating	Fire Exposure	SPF Location
U425	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing	3/4 hr to 2 hr	Both Options	Exterior
V454	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Bearing or Non-Bearing	1 hr	Asymmetrical	Stud Cavity
V495	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	3 hr	Asymmetrical	Stud Cavity or Masonry Cavity
W417	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	1 hr	Asymmetrical	Stud Cavity
W421	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	1 hr	Asymmetrical	Stud Cavity
W444	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	Non-Bearing	1 hr	Asymmetrical	Stud Cavity

Floor/Ceiling Assembly #	Currently Available BASF Systems Approved	Fire Rating	SPF Location
L521	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	1 hr	Underside of the plywood subflooring
L528			
L550			
L574			
L587			
M540			
M562			
P522	Enercite® G, Enercite® Max Walltite® Max, Walltite® LWP, Walltite® One, Walltite® V.5	1 hr	Underside of the roofing system
P531			
P533			
P538			
P545			
P552			
P556			
P579			
P580			

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