Tested Shelters, Doors and Components
Wind Science and Engineering Research Center

The Wind Science and Engineering Research Center performs debris impact tests on storm shelters, shelter components, and building materials to evaluate their ability to resist various types of projectiles propelled at different speeds in accordance to accepted and proposed test protocols as follows:

Protocols for Debris Impact Testing	
Protocol 1	Hurricane envelope impact by a 9 lb. wood 2"x4" propelled at 34 mph. In accordance to the Florida Building Code, the International Code Council and the Texas Dept. of Insurance Windstorm Resistant Construction Guide.
Protocol 2	Hurricane Shelter Speed impact by a 9 lb. wood 2"x4" propelled at 0.40 x the design wind speed (mph) for horizontal impacts and 0.10 x the design wind speed (mph) for vertical impacts, in accordance to the proposed ICC 500[1] – ICC/NSSA Standard for the Design and Construction of Storm Shelters.
Protocol 3	Hurricane shelter speed impact by a 9 lb. wood 2"x4" propelled at 0.50 x the design wind speed (mph) for horizontal impacts and 0.33 x the design wind speed (mph) for vertical impacts, in accordance with FEMA 320, "Taking Shelter from the Storm," 2008 Edition and FEMA 361, "Design and Construction Guidance for Community Saferooms," 2008 Edition.
Protocol 4	Tornado shelter speed impact by a 15 lb. wood 2"x4" propelled at 100 mph for horizontal impacts and 67 mph for vertical impacts, in accordance with FEMA 320, "Taking Shelter from the Storm," 2008 Edition and FEMA 361, "Design and Construction Guidance for Community Saferooms," 2008 Edition.
Protocol 5	Department of Energy (DOE) impact standards.

[1]The ICC 500 – ICC/NSSA Standard for the Design and Construction of Storm Shelters is scheduled for inclusion in the 2009 editions of the International Residential Code and the International Business Code. This is a Life Safety Standard which will use an Extreme Wind Map for Hurricanes with wind speeds starting at 225 mph and with contours along the Atlantic and Gulf Coast stepping inland in 10mph increments to 160 mph.

Listing does not imply product endorsement or warranty by TTU, FEMA or NSSA. ***Unless otherwise noted, the following listings have been tested to Protocol 4, the Tornado Standard Protocol.***

New Listing – Shelters

J G Saferooms Tom Bennett 2210 Industrial Road Supulpa, OK 74066 Ph. (918) 639-8102	Tested: 11-9-06 Steel above ground shelter
Bed Bunker Roger Hatcher 104 Joan Dr. Divernon, IL 62530 Ph. (334) 477-8339	Tested: 5-11-07 Steel above ground shelter
Barger & Sons Eric Barger P. O. Box 370 Kingston, TN 37763 Ph. 865-882-5860	Tested: 4-17-09 Ground shelter
Patriot Steel Shelters, LLC Novice Cole P. O. Box 209 Kingston Springs, TN 37082 Ph. 615-952-5501, Ext. 104	Tested: 7-24-09 Protocol 4 - Steel Shelter
Stormtech Systems George Lafferty 48-1 Neosho Roeland Park, KS 66205 Ph. 913-558-0097	Tested: 12-14-09 Protocol 4-Steel Panel Type Shelter

New Listing – Shelter Doors

Ground Zero Shelters, Inc. Richard Crow 4600 Independence Perry, OK 73077 Ph. (405) 880-1351	Tested: 9-6-07 Steel below ground shelter door
Quality Concrete David Gordon 917 Bois d'Arc St. Commerce, TX 75428 Ph. (800) 826-3055	Tested: 3-1-07 Steel below ground shelter door
Tornado Twister Shelter Oscar Scott, P.E. 4604 Greenwich Place Amarillo, TX 79119 Ph. (806) 463-1033	Tested: 3-1-07 Steel above ground shelter door
Vaughn Concrete Products 10021 Amarillo Blvd. East Amarillo, TX 79108 Ph. (806) 374-3747	Tested: 4-13-07 Steel below ground shelter door Tested: 5-22-07 & 6-29-07 Steel above ground shelter doors
Missouri Storm Shelters Jeff Olson 4983 Hwy 60 Rogersville, MO 65742 Ph. (866) 511-1551	Tested: 3-8-07 Steel below ground shelter door
Granger Plastics Jim Cravens 1600 M.A.D.E. Industrial Dr. Middletown, OH 45044 Ph. (513) 424-1955	Tested: 3-8-07 Aluminum below ground shelter door
Backyard Tornado Shelters, LLC Kenneth Keslink 2425 Bancroft Boulevard Orlando, FL Ph.	Tested: 8-3-09 FEMA 320 Underground shelter door
KBK Industries, LLC. Kevin Baalmann RR2, Box 3 East Hwy 96 Rush Center, KS 67575 Ph.	Tested: 6-15-09 FEMA 320 - Underground shelter door
Remagen Corporation James E. Waller, P.E. 707 North Bluff Circle Monteagle, TN 37356 931-692-3961	Tested: 10-23-09 AM500 Remagen FEMA 320 Door ICC 500 Pressure Test to 1.9 psi and 2.12 psi (door previously passed impact tests)
Safe Sheds, Inc. Don Guyuran 7029 Parrill Road Alma, IL 62807 Ph. 888-556-1531	Tested: 8-1709 Steel door - above ground safe room
Severe Weather Pod, LLC Joe Zinser 6101 Long Prairie Road PMB 744-185 Flower Mound, TX Ph. 972-679-9134	Tested: 2-13-09 Fiberglass shelter door for underground shelters

New Listing – Shelter Components

GrafTech International Mark Segger 12900 Snow Road Parma, OH 44130 Ph. (216) 676-2547	Tested: 7-19-07 FEMA impact resistant composite panel
Hardwire LLC John Hammond 1000 Quinn Ave. Pocomoke City, MD 21851 Ph. (410) 957-3669	Tested: 9-5-06 FEMA impact resistant composite panel
FiberWeb Imad Qashou 70 Old Hickory Blvd. Old Hickory, TN 37138 Ph. (615) 847-7574	Tested: 7-18-06, 9-26-06, 9-10-07 Hurricane Envelope Protocol house wrap
Schnell House S.A. Pierluigi Pettinari Strada Borrana, 33 - Zona Ind. Ciarulla 47899 Serravalle - Rep. San Marino Ph. +378 0549 960424	Tested: 8/7/09 & 8/12/09 ICC-500 / FEMA 361 Hurricane Panel
Rickborne's Marine Solution Chris Rickborne 2425 Bancroft Blvd. Orlando, FL	Tested: 8-3-09 FEMA 320 Shelter Wall Assembly
Lite Tech - Wall Systems Scott Deans 610 Hermits Trail Altamonte Springs, FL 32701 800-482-5402	Tested: 12-15-08 Various panels resistant to hurricane impacts for envelope & shelters
Mason Greenstar Zach Rabon P. O. Box 1420 Mason, TX 76856 512-698-9879	Tested: 3-27-09 Cellulose & Portland cement block system Resistant to hurricane impacts for building envelopes & shelters
Holz.ban forschungs gnbh Thomas Bogensperger Inffeldgasse 24/I 8010 Graz, Austria +43 316 873-4608	Tested: 9-26-08 Laminated timber panels protocol/4 resistant
Precision Mine Repair Jame Hise 705 West Main Ridgway, IL 62979 618-272-7220	Tested: 7-29-09 Protocol/4 wall impact
Remagen Corporation James E. Waller, P.E. 707 North Bluff Circle Monteagle, TN 37356 931-692-3961	Tested: 10-23-09 Impact tested FEMA 361/ICC-500 Community shelter Wall Vent

Previously Listed – Tested Shelters

Ground Zero Shelters	Tested: 8/14/09 FEMA 320 - Above ground shelter and Below ground shelter door

Previously Listed – Shelter Doors

ProSteel Door Corporation	Tested: 6-29-07 FEMA 320 door with Biometric Lock Tested: 8-24-07 FEMA 320 ADA Economy Door
DeanSteel	Tested: 5-29-07 FEMA 320 Door

Previously Listed – Shelter Components

GCC of America	Tested: 3-2-07 Concrete and concrete composite panels resistant to hurricane windspeeds and impacts at : 34 mph, 60 mph, 102 mph