

STC WALL ASSEMBLIES - METAL FRAME

The following wall assemblies were tested with the framing spaced at 16-inches on center, wall cavity batt insulation, and 5/8" inch, Type X gypsum board (unless noted). Resilient channels or proprietary sound absorbing accessories are not used with this table.

| STC | 3-5/8" Framing | Gypsum Board | Wall Test |
|-----|----------------|--|--------------------------------|
| 38 | 30 mil | 2 layers (1 layer on each side) | CD-TL20-413 (Proprietary) |
| 40 | 30 mil | 3 layers (1 layer on 1 side & 2 layers on other side) | CD-TL13-202 (Proprietary) |
| 40 | 30 mil | 2 layers (1 layer National Type X on each side) | NAT-NGC 2016074 (Proprietary) |
| 40 | 30 mil | 4 layers (2 layers on each side) | CD-TL13-201 (Proprietary) |
| 49 | 30 mil | 4 layers (2 layers National Type X on each side) | NAT-NGC 2016082 (Proprietary) |
| 49 | 30 mil | 5 layers (2 layers National Type X on 1 side & 3 layers National Type X on other side) | NAT-NGC 2016085 (Proprietary) |
| 51 | 30 mil | 5 layers (2 layers National Type X each side plus 1 layer 5/8" Sound Break® XP® on 1 side) | NAT-NGC 2016086 (Proprietary) |
| 51 | 30 mil | 6 layers (3 layers National Type X on each side) | NAT-NGC 2016088 (Proprietary) |
| 52 | 30 mil | 3 layers (1 layer on 1 side & 2 layers on other side) | TSIB STC Assembly 2 |
| | | | |
| 35 | 33 mil | 2 layers (1 layer on each side) | CD-TL13-196 (Proprietary) |
| 40 | 33 mil | 3 layers (1 layer on 1 side & 2 layers other side) | CD-TL13-195 (Proprietary) |
| 41 | 33 mil | 2 layers (1 layer Pabco Type X on each side) | PAB-NOAL 18-0901 (Proprietary) |
| 41 | 33 mil | 2 layers (1 layer on each side) | TSIB STC Assembly 1 |
| 43 | 33 mil | 2 layers (1 layer Pabco Type X on 1 side and 1 layer 5/8" QuietRock® ES on other side) | PAB-NOAL 21-0377 (Proprietary) |
| 43 | 33 mil | 4 layers (2 layers on each side) | CD-TL13-194 (Proprietary) |
| 44 | 33 mil | 3 layers (1 layer on 1 side / 2 layers on other side) | TSIB STC Assembly 3 |
| 45 | 33 mil | 4 layers (2 layers Pabco Type X on each side) | PAB-NOAL 21-0375 (Proprietary) |
| 54 | 33 mil | 2 layers (1 layer 5/8" QuietRock® 530 each side) | PAB-NOAL 18-0902 (Proprietary) |
| 56 | 33 mil | 2 layers (1 layer Silent FX QC on each side) | CER-OL17-0301 (Proprietary) |
| 62 | 33 mil | 2 layers (1 layer 1 3/8" QuietRock® 545 each side) | PAB-NOAL 18-0903 (Proprietary) |
| | | | |
| 38 | 43 mil | 2 layers (1 layer Pabco Type X on each side) | PAB-NOAL 18-0739 (Proprietary) |
| 42 | 43 mil | 4 layers (2 layers Pabco Type X on each side) | PAB-NOAL 18-0737 (Proprietary) |
| 44 | 43 mil | 3 layers (1 layer on 1 side & 2 layers on other side) | TSIB STC Assembly 4 |
| 45 | 43 mil | 1 layer (1 layer Pabco Type X on 1 side) 1 layer (1 layer 5/8" QuietRock® ES on other side) | PAB-NOAL 18-0735 (Proprietary) |
| | | | |
| 35 | 54 mil | 2 layers (1 layer Pabco Type X on each side) | PAB-NOAL 21-0342 (Proprietary) |
| 40 | 54 mil | 4 layers (2 layers Pabco Type X on each side) | PAB-NOAL 21-0443 (Proprietary) |
| 41 | 54 mil | 1 layer (1 layer Pabco Type X on 1 side & 1 layer 5/8" QuietRock® on other side) | PAB-NOAL 18-1512 (Proprietary) |
| 42 | 54 mil | 3 layers (1 layer on 1 side / 2 layers on other side) | TSIB STC Assembly 5 |
| 45 | 54 mil | 2 layers (1 layer 5/8" QuietRock® ES on each side) | PAB-NOAL 18-0912 (Proprietary) |
| 45 | 54 mil | 2 layers (1 layer Silent FX QC each side) | CER-OL 18-0813 (Proprietary) |
| 45 | 54 mil | 3 layers (2 layers Pabco Type X on one side & 1 layer QuietRock® ES on other side) | PAB-NOAL 18-0626 (Proprietary) |
| 48 | 54 mil | 1 layer (1 layer CertainTeed Type X on one side) 1 layer (1 Layer Silent FX QC on other side) | CER-OL17-1324 (Proprietary) |
| 51 | 54 mil | 2 layers (1 layer 5/8" QuietRock® 530 each side) | PAB-NOAL 18-0911 (Proprietary) |
| 62 | 54 mil | 2 layers (1 layer 1 3/8" QuietRock® 545 each side) | PAB-NOAL 18-1111 (Proprietary) |

| STC | 4" Framing | Gypsum Board | Wall Test |
|-----|------------|--|--------------------------------|
| 38 | 30 mil | 2 layers (1 layer on each side) | CD-TL20-413 (Proprietary) |
| 38 | 30 mil | 3 layers (1 layer on 1 side / 2 layers on other side) | CD-TL13-202 (Proprietary) |
| 40 | 30 mil | 4 layers (2 layers on each side) | CD-TL13-201 (Proprietary) |
| | | | |
| 35 | 33 mil | 2 layers (1 layer on each side) | CD-TL13-196 (Proprietary) |
| 40 | 33 mil | 2 layers (1 layer Pabco Type X on each side) | PAB-NOAL 21-0385 (Proprietary) |
| 40 | 33 mil | 3 layers (1 layer on 1 side / 2 layers on other side) | CD-TL13-195 (Proprietary) |
| 43 | 33 mil | 4 layers (2 layers on each side) | CD-TL13-194 (Proprietary) |
| 48 | 33 mil | 3 layers (2 layers Pabco Type X on one side and 1 layer 5/8" QuietRock ES on other side) | PAB-NOAL-21-0387 (Proprietary) |
| | | | |
| 45 | 54 mil | 4 layers (2 layers National Type X on each side) | NAT-NGC 2016049 (Proprietary) |
| 51 | 54 mil | 4 layers (2 layers CertainTeed Type X & 2 layers Silent FX QC on each side) | CER-NOAL 18-0805 (Proprietary) |

| STC | 6" Framing | Gypsum Board | Wall Test |
|-----|------------|--|--------------------------------|
| 38 | 30 mil | 2 layers (1 layer on each each) | CD-TL20-413 (Proprietary) |
| 38 | 30 mil | 3 layers (1 layer on 1 side / 2 layers on other side) | CD-TL13-202 (Proprietary) |
| 40 | 30 mil | 4 layers (2 layers on each side) | CD-TL13-201 (Proprietary) |
| 44 | 30 mil | 2 layers (1 layer National Type X on each side) | NGC 2018133 (Proprietary) |
| 54 | 30 mil | 4 layers (2 layers National Type X on each side) | NAT-NGC 2018132 (Proprietary) |
| | | | |
| 35 | 33mil | 2 layers (1 layer on each side) | CD-TL13-196 (Proprietary) |
| 40 | 33 mil | 3 layers (1 layer on 1 side / 2 layers on other side) | CD-TL13-195 (Proprietary) |
| 42 | 33 mil | 2 layers (1 layer on each side) | PAB-NOAL 20-1221 (Proprietary) |
| 43 | 33 mil | 4 layers (2 layers on each side) | CD-TL13-194 (Proprietary) |
| 45 | 33 mil | 4 layers (2 layers Pabco Type X on each side) | PAB-NOAL 20-1222 (Proprietary) |
| 45 | 33 mil | 1 layer (1 layer 5/8" Extreme Abuse on one side) 1 layer (1 layer CertainTeed Type X on other side) | CER-NGC 2018017(Proprietary) |
| 50 | 33 mil | 3 Layers (2 layers Pabco Type X on 1 side and 1 layer 5/8" QuietRock® ES on other side) | PAB-NOAL 20-1228 (Proprietary) |
| 58 | 33 mil | 3 layers (2 layers Pabco Type X on 1 side and 1 layer 1 3/8" QuietRock® 545 other side) | PAB-NOAL 20-1235 (Proprietary) |
| | | | |
| 45 | 43 mil | 3 layers (2 layers 5/8" Pabco Type X on 1 side & 1 layer QuietRock® ES on other side) | PAB-NOAL 18-0735 (Proprietary) |
| 46 | 43 mil | 2 layers (1 layer 5/8" QuietRock® ES each side) | PAB-NOAL 18-1021 (Proprietary) |
| | | | |
| 44 | 54 mil | 2 layers (1 layer Pabco Type X on 1 side & 1 layer 5/8" QuietRock® ES on other side) | PAB-NOAL 21-0355 (Proprietary) |
| 47 | 54 mil | 2 layers (1 layer Pabco Type X on 1 side & 1 layer 5/8" QuietRock® 530 on other side) | PAB-NOAL 21-0361 (Proprietary) |
| 48 | 54 mil | 2 layers (1 layer 5/8" QuietRock® ES each side) | PAB-NOAL 21-0356 (Proprietary) |
| 50 | 54 mil | 2 layers (1 layer 5/8" Hi-Impact XP® on one side & 1 layer 5/8" Sound Break® XP® other side) | NAT-NGC 2017031 (Proprietary) |
| 51 | 54 mil | 4 layers (2 layers CertainTeed Type X each side) | CER-OL18-1012 (Proprietary) |
| 52 | 54 mil | 4 layers (2 layers National Type X on each side) | NAT-NGC 2017174 (Proprietary) |
| 54 | 54 mil | 2 layers (1 layer 5/8" QuietRock® 530 each side) | PAB-NOAL 21-0362 (Proprietary) |
| 55 | 54 mil | 2 layers (1 layer 5/8" Hi-Impact XP® on one side & 1 layer 5/8" CertainTeed Type X other side) | CER-OL 18-1238 (Proprietary) |
| 62 | 54 mil | 2 layers (1 layer each side 1 3/8" QuietRock® 545) | PAB-NOAL 18-1111 (Proprietary) |

STC 1-HOUR SHAFT WALL ASSEMBLIES - METAL FRAME

The following proprietary wall assemblies were tested with the framing spaced at 24-inches on center, wall cavity batt insulation, I, C-T or C-H metal stud framing and proprietary gypsum board panels.

| STC | 2 1/2" Framing | Gypsum Board | Wall Test |
|-------|--------------------------|---|-------------------|
| 40 | 18 mil I studs | 2 layers (1 layer GlassRoc Shaftliner on one side & 1 layer 5/8" CertainTeed Type X other side) | CER-NGC2006036 |
| 40-44 | 18 mil CH, CT or I studs | 2 layers (1 layer 1" ToughRock Shaftliner or Densglass Shaftliner on one side & 1 layer 5/8" ToughRock Type X other side) | GP- RAL TL 09-357 |
| 45 | 18 mil CH studs | 2 layers (1 layer M2 Tech Shaftliner on one side & 1 layer 5/8" CertainTeed Type X other side) | CER-NOAL 18-0805 |
| 49 | 18 mil CT studs | 2 layers (1 layer GlassRoc Shaftliner on one side & 1 layer 5/8" Silent FX QC other side) | CER-NOAL 17-1140 |
| 40 | 22 mil CH studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2001005 |
| 42 | 22 mil I studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2542 |
| 42 | 22 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2016033 |
| 44 | 22 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Soundbreak XP other side) | NAT-NGC 2015035 |
| 44 | 22 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) over RC-1 channel | NAT-NGC 2015036 |
| 47 | 22 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Soundbreak XP other side) over RC-1 channel | NAT-NGC 2015038 |
| 48 | 22 mil I studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) over RC-1 channel | NAT-NGC 2541 |
| 43 | 43 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Soundbreak XP other side) | NAT-NGC 2019008 |

| STC | 4" Framing | Gypsum Board | Wall Test |
|-------|--------------------------|---|-----------------|
| 47 | 22 mil CH studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2015044 |
| 51 | 22 mil CH studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) over RC-1 channel | NAT-NGC 2015047 |
| 50-54 | 33 mil CH, CT or I studs | 2 layers (1 layer 1" M-Bloc Shaftliner on one side & 1 layer 5/8" FireBloc Type X on other side over resilient channel) | AM-NOAL 20-0213 |
| 47 | 43 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2019011 |

| STC | 6" Framing | Gypsum Board | Wall Test |
|-----|-----------------|---|-----------------|
| 53 | 33 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2019014 |
| 59 | 33 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side over 7/8" furring channel and resilient isolation clips) | NAT-NGC 2019017 |

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|----|-----------------|--|-----------------|
| 61 | 33 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Soundbreak XP other side) over 7/8" furring channel and resilient isolation clips | NAT-NGC 2019019 |
|----|-----------------|--|-----------------|

STC 2-HOUR SHAFT WALL ASSEMBLIES - METAL FRAME

The following proprietary wall assemblies were tested with the framing spaced at 24-inches on center, wall cavity batt insulation (except where noted, I, C-T or C-H metal stud framing and proprietary gypsum board panels.

| STC | 2 1/2" Framing | Gypsum Board | Wall Test |
|-------|--------------------------|--|-------------------|
| 45-49 | 18 mil CH, CT studs | 3 layers (1 layer 5/8" Firebloc Type X & 1" M-Bloc Shaftliner on one side & 1 layer 5/8" Firebloc Type X on other) | AM-RAL-TL 14-254 |
| 45-49 | 18 mil CH studs | 3 layers (1 layer 1/2" Flamecurb Type C & 1" PabCore Shaftliner on one side & 1 layer 1/2" Flame Curb Type C on other) | PAB- NOAL 17-1201 |
| 48 | 18 mil I studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 2 layers 5/8" CertainType X other side) | CER-NGC 2017158 |
| 48 | 18 mil CH studs | 3 layers (1 layer 1" Sheetrock Gypsum Liner on one side & 2 layers 5/8" Sheetrock Type X other side) with 1" sound batts in cavity | USG-RAL-OT 04-022 |
| 50-54 | 18 mil CH, CT or I studs | 3 layers (1 layer 1" M-Bloc Shaftliner on one side & 2 layers 5/8" FireBloc Type X on other side over resilient shannel) | AM-RAL-TL 10-352 |
| 51 | 18 mil CT studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 2 layers 1/2" CertainTeed Type C other side) | CER-NOAL 18-0808 |
| 53 | 18 mil CT studs | 3 layers (1 layer GlassRoc Shaftliner on one side & 2 layers 5/8" CertainTeed Type C other side) over RC channel | CER-NOAL 18-0811 |
| 54 | 18 mil CT studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 2 layers 5/8" CertainTeed Type X other side) | CER-NOAL 18-0809 |
| 55 | 18 mil CT studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 1 layer 5/8" CertainTeed Type X plus 1 layer Silent FX QC other side) | CER-NOAL 17-1141 |
| | | | |
| 45-49 | 21 mil CT studs | 3 layers (1 layer 1/2" ToughRock Fireguard C or Densarmour Plus C over 1 layer 1" ToughRock Shaftliner or Densglass Shaftliner on side & 2 layers 5/8" ToughRock FireGuard X or 5/8" DensArmour Plus X on other) | GP-RAL-TL 09-359 |
| 50-54 | 21 mil CT studs | 3 layers (1 layer 5/8" ToughRock X or 5/8" DensArmour Pluson & 1 layer 1" ToughRock Shaftliner or DensGlass Shaftliner on one side & 1 layer 5/8" ToughRock X or 5/8" DensArmour Pluson other) | GP-RAL-TL 09-358 |
| 50-54 | 21 mil CT studs | 3 layers (1 layer 1/2" CertainTeed Type C over 1" M2 Tech Shaftliner on one side & 1 layer 5/8" CertainTeed Type X plus 1 layer Silent FX QC other side) | CER-NOAL 19-0609 |
| 50-54 | 21 mil CT studs | 3 layers (1 layer 1" ToughRock Shaftliner or DensGlass Shaftliner on one side & 2 layers 5/8" ToughRock X or 5/8" DensArmour Pluson other) | GP-RAL-TL 09-358 |
| 50-54 | 21 mil CT studs | 3 layers (1 layer of 1/2" ToughRock C or 1/2" Denarmour & 1 layer 1" ToughRock Shaftliner or DensGlass Shaftliner plus on one side & 1 layer 1/2" ToughRock Type C or 1/2" DensArmour Plus on other) | GP-RAL-TL 09-181 |
| 50-54 | 21 mil CT studs | 3 layers (1 layer 1" ToughRock Shaftliner or DensGlass Shaftliner on one side & 2 layers 1/2" ToughRock Type C or 1/2" DensArmour Plus on other) | GP-RAL-TL 09-181 |

| | | | |
|-------|-----------------|---|------------------|
| 50-54 | 21 mil CT studs | 3 layers (1 layer 1" ToughRock Shaftliner or DensGlass Shaftliner on one side & 1 layer ½" ToughRock FireGuard C or DensArmour Plus C on other) | GP-RAL-TL 09-360 |
| | | | |
| 46 | 22 mil CH studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) | NAT-NGC 2011006 |
| 47 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) | NAT-NGC 2016035 |
| 47 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 1/2" Fire Shield Type C other side) | NAT-NGC 2019009 |
| 48 | 22 mil I studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) | NAT-NGC 2507 |
| 48 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner plus 1 layer 5/8" Fire Shield on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 6034 |
| 48 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner plus 1 layer 1/2" Fire Shield Type C on one side & 1 layer 1/2" Fire Shield Type C other side) | NAT NGC 2017005 |
| 48 | 22 mil I studs | 3 layers (1 layer 1" Fire Shield Shaftliner plus 1 layer 5/8" Fire Shield on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2534 |
| 49 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 1/2" Fire Shield Type C other side) | NAT-NGC 2017006 |
| 50 | 22 mil CT studs | 4 layers (1 layer 1" Fire Shield Shaftliner on one side & 3 layers 5/8" Fire Shield Type C other side) | NAT NGC 2016039 |
| 51 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Soundbreak XP plus 5/8" Fire Shield other side) | NAT-NGC 2015035 |
| 51 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) over RC-1 channel | NAT-NGC 2016038 |
| 51 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X plus 1 layer 5/8" Soundbreak XP other side) | NAT-NGC 2015037 |
| 51 | 22 mil I studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) over RC-1 channel | NAT-NGC 2540 |
| 52 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 1/2" Fire Shield Type C other side) over RC-1 channel | NAT-NGC 2017007 |
| 52 | 22 mil I studs | 3 layers (1 layer 5/8" Fire Shield over 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X) over RC-1 channel | NAT-NGC 2538 |
| 53 | 22 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield plus 5/8" Sound Break XP) over RC-1 channel | NAT-NGC 2015039 |
| 53 | 22 mil CT studs | 3 layers (1 layer ½" Fire Shield plus 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Sound Break XP) over RC-1 channel other side) | NAT-NGC 2015036 |
| 53 | 22 mil CT studs | 3 layers (1 layer 1/2" Fire Shield Type C plus 1" Fire Shield Shaftliner on one side & 1 layer 1/2" Fire Shield C other side) over RC-1 channel | NAT-NGC 2017008 |
| 55 | 22 mil CT studs | 3 layers (1 layer 5/8" Soundbreak XP plus 1" Fire Shield Shaftliner on one side & 5/8" Fire Shield Type X) over RC-1 channel | NAT-NGC 2015041 |
| 56 | 22 mil CT studs | 3 layers (1 layer 5/8" Soundbreak XP plus 1" Fire Shield Shaftliner on one side & 5/8" Sound Break XP) over RC-1 channel | NAT-NGC 2015040 |
| | | | |
| 43 | 43 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) | NAT-NGC 2019007 |

| STC | 4" Framing | Gypsum Board | Wall Test |
|-------|--------------------------|--|-------------------|
| 50* | 18 mil CH studs | 3 layers (1 layer 1" Sheetrock Gypsum Liner on one side & 2 layers 5/8" Sheetrock Type X other side) | USG-RAL-OT 04-019 |
| 51 | 18 mil CH studs | 2 layers (1 layer 1" Sheetrock Gypsum Liner on one side & 1 layer 3/4" Ultracode gypsum board other side) | USG-RAL-OT 04-020 |
| 53* | 18 mil CH studs | 3 layers (1 layer 1" Sheetrock Gypsum Liner on one side & 2 layer 1/2" Firecode C gypsum board other side) | USG-040909 |
| 58* | 18 mil CH studs | 4 layers (2 layers 1" Sheetrock Gypsum Liner on one side & 2 layer 1/2" Firecode C gypsum board other side) | USG-040910 |
| | | | |
| 51* | 22 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 3/4" Ultrasheild gypsum board other side) | NAT-NGC 2015043 |
| 54* | 22 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 3/4" Ultrasheild gypsum board other side) over RC-1 channel | NAT-NGC 2015042 |
| 58 | 22 mil CT studs | 5 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type C on 7/8" rigid furring channels 16: o.c. plus 3 layers 5/8" Fire Sheild Type C other side) | NAT-NGC 2016040 |
| | | | |
| 53 | 33 mil CT studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 2 layers 1/2" CertainTeed Type C other side) over RC-1 channel | CER-NGC 2017145 |
| 54 | 33 mil CT studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 2 layers 5/8" CertainTeed Type X other side) over RC-1 channel | CER-NOAL 18-0816 |
| 54 | 33 mil CH studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 2 layers 5/8" CertainTeed Type X other side) | CER-NOAL 17-1202 |
| 55-59 | 33 mil CH, CT or I studs | 3 layers (1 layer 1" M-Bloc Shaftliner on one side & 2 layers 5/8" FireBloc Type X on other side over resilient shannel) | AM-NOAL 20-0214 |
| 58 | 33 mil CT studs | 3 layers (1 layer GlasRoc Shaftliner on one side & 1 layer 5/8" CertainTeed Type X plus 2 layer Silent FX QC other side) | CER-NOAL 18-0815 |
| | | | |
| 47 | 43 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Shield Type X other side) | NAT-NGC 2019011 |
| 50 | 43 mil CT studs | 2 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 1/2" Fire Shield Type C other side) | NAT-NGC2019010 |
| 51 | 43 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) | NAT-NGC 2019012 |

*3" mineral wood insulation is used in lieu of fiberglass insulation.

| STC | 6" Framing | Gypsum Board | Wall Test |
|-----|-----------------|---|-----------------|
| 51 | 33 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 5/8" Fire Shield Type X other side) | NAT-NGC 2019013 |
| 53 | 33 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 2 layers 1/2" Fire Sheild Type C other side) | NAT-NGC 2019015 |
| 61 | 33 mil CT studs | 3 layers (1 layer 1" Fire Shield Shaftliner on one side & 1 layer 5/8" Fire Sheild Type X other side) over 7/8" furring channel and resilient isolation clips | NAT-NGC 2019016 |

STC 3-HOUR SHAFT WALL ASSEMBLIES - METAL FRAME

The following wall assemblies were tested with the framing spaced at 24-inches on center, wall cavity batt insulation (except where noted, C-T or C-H metal stud framing and proprietary gypsum board panels).

| STC | 2 1/2" Framing | Gypsum Board | Wall Test |
|-------|-----------------|---|--------------------|
| 55-59 | 18 mil CT studs | 4 layers (1 layer 5/8" CertainTeed Type C over 1 layer 1" M2 Tech Gypsum Liner on one side & 2 layers 5/8" CertainTeed Type C other side) | CER-NOAL 18-0720 |
| 50-54 | 21 mil CT studs | 4 layers (1 layer 1" DensGlass Shaftliner on one side & 3 layers 5/8" ToughRock Fire Guard C on other side) | GP-RAL TL09-360 |
| 50-54 | 22 mil CT studs | 4 layers (1 layer 1" Gold Bond Shaftliner on one side & 3 layers 5/8" Gold Bond Fire Sheild C on other side) | NAT-NGC 2016039-R1 |

| STC | 4" Framing | Gypsum Board | Wall Test |
|--------|-----------------|---|-------------------|
| 45-49 | 18 mil CH studs | 4 layers (1 layer 5/8" Sheetrock Firecode C over 1 layer 1" Sheetrock Gypsum Liner panel on one side & 2 layers 5/8" Type X Firecode C other side) | USG-040902 |
| 50-54* | 18 mil CH studs | 4 layers (1 layer 1" Sheetrock Gypsum Liner panel on one side & 3 layers 5/8" Fire Code C other side) over 7/8" furring channel and resilient isolation clips | USG-RAL OT 04-018 |

*3" mineral wood insulation is used in lieu of fiberglass insulation.

STC 4-HOUR SHAFT WALL ASSEMBLIES - METAL FRAME

The following wall assemblies were tested with the framing spaced at 24-inches on center, wall cavity batt insulation (except where noted, C-T or C-H metal stud framing and proprietary gypsum board panels).

| STC | 2 1/2" Framing | Gypsum Board | Wall Test |
|-------|-----------------|--|--------------------|
| 55-59 | 18 mil CT studs | 6 layers (1 layer 1" Gold Bond Gypsum Liner XPon one side & 3 layers 5/8" Fire Sheild Type C with rigid furring channels spaced 16" o.c. and two layers 5/8" Fire Sheild other side) | NAT-NGC 2016040-R1 |

| Test Wall Source Table | |
|-------------------------------|--|
| Prefix-Lab | Company |
| AM-NOAL | American Gypsum FireBloc® Gypsum Board |
| AM-RAL-TL | American Gypsum FireBloc® Gypsum Board |
| CER-NGC | Certain Teed Gypsum GlassRoc® Interior gypsum board |
| CER-NOAL | Certain Teed Gypsum GlassRoc® Interior gypsum board |
| CER-OL | Certain Teed Gypsum GlassRoc® Interior gypsum board |
| CD-TL | ClarkDietrich ProStud Framing® (Based on Veneklasen Associates Acoustical Analysis 5123-019-4B) |
| GP-RAL-TL | Georgia Pacific ToughRock® & Georgia Pacific Densglass® |
| NAT-NGC | National Gypsum: Gold Bond® Fire-shield® gypsum board |
| PAB-NOAL | Pabco Gypsum: Flamecurb® gypsum board |
| TSIB | Intertek Labs for TSIB |
| USG | United States Gypsum Sheetrock® Interior Gypsum Board |
| USG-RAL-OT | United States Gypsum Sheetrock® Interior Gypsum Board |

| Conversion Table – Mil to Gauge | |
|--|---------------------------|
| 18 mil | 25 gauge |
| 30 mil | 20 gauge (non-structural) |
| 33 mil | 20 gauge (structural) |
| 43 mil | 18 gauge |
| 54 mil | 16 gauge |