

# Paint

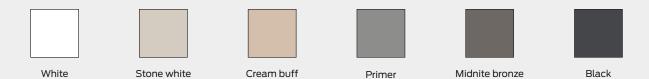
#### Prime paint

All Republic's doors and frames are thoroughly cleaned and phosphatized prior to painting. The prime paint used on Republic's doors and frames is a modified water based Alkyd melamine primer. Materials are forced cured after painting to maximize adhesion and strength. Republics's primers are capable of meeting the requirements as specified by ANSI A250.10. The gloss for Republic's primer is less than 18% refl ectance measured using a 60° gloss meter.

#### **Finish paint**

All Republic's doors and frames requiring fi nish paint are primed as specified above then coated with a modified water based Alkyd melamine finish paintl and are forced cured. Republic's fi nish painted products are capable of meeting requirements as specified by ANSI A250.3. The gloss for Republic's fi nish paint is 20% ± 5% refl ectance measured using a 60° gloss meter.

Republic's prime paint and fi nish paint comply with Public Law 91-695, Lead Based Paint Poisoning Prevention Act.



#### **About Allegion**

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit www.allegion.com.



# **DP** Series

Honeycomb/ polystyrene core

The DP Series door is a square hinge and lock edge door providing a non-handed door option to simplify installation and reduce distributor inventory for quick service needs. Its lock and hinge edge projection welds, which are concealed under the hemmed lid, provide an unblemished appearance, provide superior strength and durability. This door is ideally suited for light commercial applications that aren't highly specified or complex openings.

- Non-handed, square hinge and lock edges with exposed vertical edge seam
- Included 4<sup>1</sup>/<sub>2</sub>" reversible hinge filler plate
- Full height projection welded vertical edges for superior strength and durability
- Available in flush and embossed pattern designs
- Available in both cold rolled and A-60 galvannealed steel in 20 and 18 gauge skins
- Design and performance to meet ANSI A250.4, A250.6 and A250.8 requirements
- Fire rated up to 3 hr in accordance to UL 10B and UL 10C.
- Sound Transmission Classification (STC) of 38 as a flush, honeycomb core door
- See price pages for full details on standard size, feature and option availability





#### Top channel

- Flush continuous 16 gauge steel channel, inverted optional
- When closer reinforcement requested 14 gage standard



#### **Bottom channel**

- 16 gauge inverted channel standard, flush optional
- Approximate recess depth 9/16"



#### Polystyrene core

- For enhanced thermal performance
- ASTM C1363 / U=.41 / R=2.43
- STC rating of 35 standard (flush)



#### Lock edge

- Square hinge edge with 1/8" clearance
- 16 gauge cylindrical lock reinforcement with provisions for Government Series 160 or 161 cylindrical lock sets (23/4" backset) and ANSI A115.2 lock front (1 1/8" x 2 1/4")



#### Hinge edge

- Square hinge edge with 1/8" clearance
- 4<sup>1</sup>/<sub>2</sub>" hinge preparations with reversible filler plate for handing
- Universal 7 gauge hinge reinforcement allows for easy modification from standard weight to heavy weight hinges



#### Honeycomb core

- Efficient in 95% of all weather conditions
- ASTM C1363 / U=.59 / R=1.70
- STC rating of 38 standard (flush)

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# Embossed panel doors

#### Overview

Republic Doors and Frame's complete line of commercial hollow metal embossed panel doors provide a wide range of design flexibility for your architectural needs. Whether you select a traditional design or a high definition (HD) design, you will be adding a beautiful entrance to any architectural opening with rich, distinctive panel embossments.

Republic's traditional embossed designs include 8, 6, 4, 2, and 1 panel layouts. We also offer 8'0 (nominal) tall on the 6 and 2 panel designs with elongated panels. Several of our designs are available with provision(s) for lite inserts. Our doors are available in 20, 18 and 16 gage, depending upon design. Embossed doors are standard A40 galvanneal with polystyrene core.



- Steel door performance with decorative designs
- SDI levels 1-3
- Traditional designs include 6 panel options:
  - 1 <sup>3</sup>/<sub>8</sub>" Or 1 <sup>3</sup>/<sub>8</sub>" thick design, rated for light to extra-heavy duty use
  - 8 Foot with elongated panels
  - STC 40 (STC hardware included)
- Minimum sizes 2'8"x 6'8" available
- Certified for 3 hours of fire protection tested in accordance with UL 10b, UL 10c, UBC 7-2, and ASTM e152
- 2 And 6 panel embossed doors are ideal for hurricane applications and hold a pressure rating of 80 psf for both inswing and outswing applications.

# Traditional designs













High definition designs







2 panel

2 panel archtop

# Additional standard product features

- Hinge channel is non-beveled and reinforced with a full height 16 gage steel channel projection welded at a maximum of 5" on center with an additional 9 gage reinforcement plate at each hinge location, providing over 3/16" total reinforcement.
- 16 gage flush top and inverted bottom channels projection welded to both skins every 2 ½" on center.
- Lock edge is non-beveled and reinforced with a continuous 16 gage channel, mortise and cylindrical lock reinforcements are integral 16 gage reinforcements.
- Doors are thoroughly cleaned, phosphatized and primed with a coat of force cured rust inhibiting primer that meets and/or exceeds the requirements of ANSI A250.10 (120 hour continuous salt spray test per ASTM B117 and 240 hour continuous humidity test per ASTM D4585)
- Due to availability, certain sizes, patterns may require minimum quantity purchases

For technical information and specifications, view the tech data manual at republicdoor.com.

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# Hurricane doors and frames

# Certified Protection from Nature's Strongest Storms

Republic Hurricane certified doors and frames combine the strength of specially designed doors and frames with the trusted security of Allegion hardware. HUR(I) DL16 and DE14 Series Impact doors and ME/SE Series hurricane resistant frames are designed to stand up to nature's fiercest barrage of wind and water.

Republic Impact resistant assemblies are tough enough for all hurricane prone regions. Designed for High Velocity Hurricane Zones, these assemblies are approved in Miami/Dade, Broward and Coastal Palm Beach, as well as high wind speed / high risk category areas outside of Florida.

Additionally, Allegion supports customers with ordering tools, designed to simplify complex standard based ordering, allowing door hardware, approvals and anchor selection to be done quickly and efficiently.

For exterior openings outside of wind-borne debris regions where wind speeds are under 130 mph, standard Republic DP, DL, and DE doors with ME/SE Series frames are approved and listed for non-impact / E330 labeled applications.



## Features and benefits

#### Performance

- Assembly approved with Allegion hardware
- Approved in HVHZ regions, Missile levels D or E up to 170 PSF
- Tested to IBC, FBC and ASCE 7-10 protocols, including TAS 201 (Impact), TAS 202 (Static) and TAS 203 (Cyclic load)

#### Certifications

- Florida Building Code (FBC)
- Texas Department of Insurance (TDI)
- Fire rated options up to 3 hours (UL/WHI)
- SDI Certified

#### **Ordering**

- COACH order wizard walks customers through the digital order form
- Approval and Anchor LOOKUP Tools simplify finding the correct product requirements
- Tools available for download at Republicdoor.com > Hurricane

#### Product Offering Range

A wide range of hurricane impact and wind resistant products are available. Available Impact and pressure ratings vary with size and other features based on the your chosen combination of listed and approved doors, frames, and Allegion hardware.

#### HUR(I) DL16 / DE14 Impact doors

- Inward/Outward design pressures up to 170 PSF
- Max opening 4'0"x8'0" single and 8'0"x8'0" pair
- Max exposed glass based on hardware 34.25"w x 74.5"h or 24"w x 64"h or 100" sq limit using std 3"w x 33"h, 4"w x 20"h, or 5"w x 20"h (70 max PSF trim)
- Max louver: Impact openings 35.78"w x 76.03"h

#### Non-Impact E330 standard DP18, DL16/18, DE14/16/18

- Inward/Outward design pressures up to 60 PSF
- Max opening 4'0"x8'0" single and 8'0"x8'0" pair
- Max exposed glass 34.25"w x 74.5"h

#### Impact and Non-Impact ME frames and SE sticks

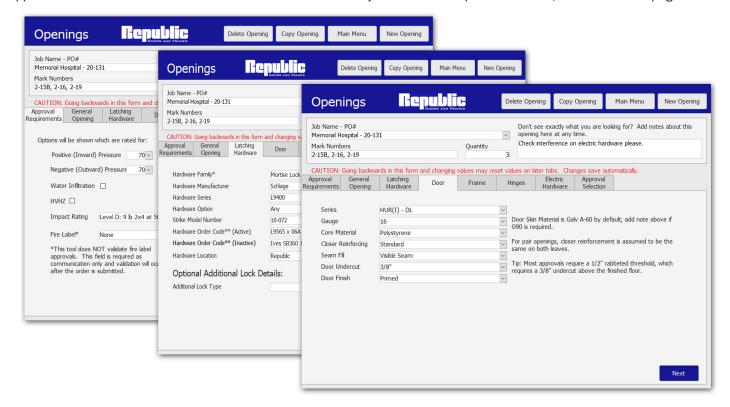
- Max door opening 8'0"x8'0". KD or Welded.
- JD 5-3/4" thru 14-3/4". 2" face jambs, 2"/4" face head.
- Elevations / Borrowed Lites / Storefronts calculated (see listing). Max exposed glass 54.75"w x 80.75"h or 34.75"w x 116.75"h.
- Anchor qty, type, and locations vary per approval

#### Allegion assembly-approved latching hardware

- Schlage 3-pt lock, Cylindrical, Cyl Deadbolt, Mortise
- Von Duprin 3-pt latch, CVC exit, CVR exit, Exit alarm, Mortise exit, RIM exit, SVR exit
- IVES SB360 surface bolt for inactive leaf

# Ordering and Support Tools

Republic's Customer Order Assistant for Certified Hurricane, or COACH\*, simplifies ordering FBC approved openings, allowing you to easily find approved products including listed assembly hardware. Additionally, Republic offers LOOKUP tools for approvals and for anchor selection. These resources can be easily accessed via Republicdoor.com, on the hurricane page.



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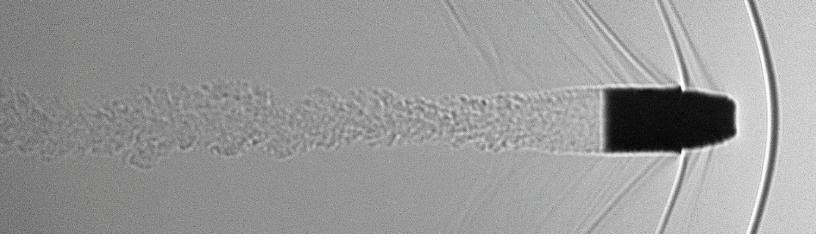
# Bullet resistant doors and frames

#### Overview

Republic offers up to eight levels of bullet resistant door and frame protection, ranging from 9mm handguns (Level 1) up to 7.62mm military assault rifles (Level 8). All bullet resistant doors are tested and labeled in accordance with UL752 and constructed per SDI Level 4. They also come standard with polystyrene or mineral wool core for interior or exterior applications. These assemblies are designed for installations such as public utility and military buildings, cashier islands and currency exchanges, cellular tower units and any other security location requiring bullet resistance.



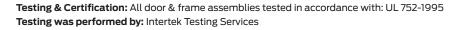
- SDI level 4 maximum duty performance level a
- Flush top channel standard for exterior applications
- All doors have insulated polystyrene or mineral wool core as standard
- Seamless vertical edges (visible optional)
- Single doors through 5'0 x 10'0 opening
- Paired openings through 10'0 x 10'0\* (Level 3 max)
- 4<sup>1</sup>/<sub>2</sub>", 5" And continuous hinge preparations available
- Glass lights available (consult factory; exclude glass & glazing)
- Gov 86 or Gov 161 lock preparations available



# Protection Levels per UL752

Republic's bullet resistant systems offer various levels or protection defined by UL72 standard ratings. Each of the 8 levels shown below have been tested and found effective at stopping a variety of projectiles, especially ones most typically used during an armed robbery. Although the UL72 ratings extend to Level 8, most banks, credit unions, and convenience stores are typically protected in Levels 1-3.

Level	No. of shots	Ammunition	Grain	Min. velocity
1	3	9mm full metal copper jacket	124	1,175 fps
2	3	.357 Magnum	158	1,250 fps
3	3	.44 Magnum lead semi-wad cutter gas checked	240	1,350 fps
4	1	.30 caliber rifle lead core	180	2,540 fps
5	1	7.62mm rifle full metal jacket military ball	150	2,750 fps
6	5	9mm full metal jacket	124	1,400 fps
7	5	5.56mm rifle full metal jacket	55	3,080 fps
8	5	7.62mm rifle full metal jacket military ball	150	2,750 fps
Supplementary shotgun	3	12 ga. rifled lead slug	437	1,585 fps





Level 1 (9 mm)



Level 2 (.357 magnum)



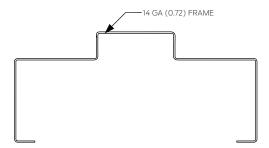
Level 3 (.44 magnum)

# Typical Republic bullet resistant construction details

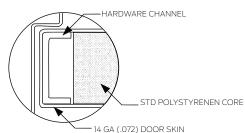
DE Series doors and ME Series frames allow the architect/specifier the highest level of performance and construction flexibility. Listed below are some of the various types of anchorage styles available along with various standard hardware preparations. With these types of high security openings, security is only as good as the weakest link. For this reason, Republic recommends that the adjacent walls provide the same level of bullet resistance as Republic's bullet resistant system.



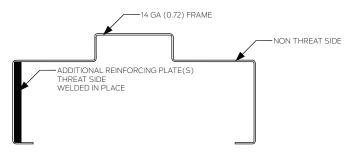
#### Detail 2, Level 1



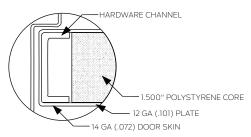
#### **Detail 1**



#### Detail 2, Level 2 and 3, Armor Reinforcement

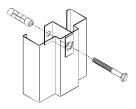


#### **Detail 1-Typical construction**

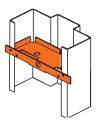


# Typical Republic bullet resistant construction details (continued)

#### **Anchor options**



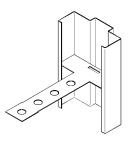
Prepared opening anchor



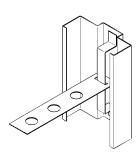
Snap in universal anchor

For technical information and specifications, view the tech data manual at republicdoor.com.

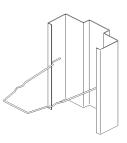
\*Anchor type contingent on level of rating and necessary construction



Masonry Tee

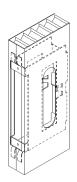


Adjustable strap

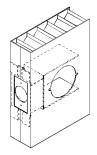


Masonry wire

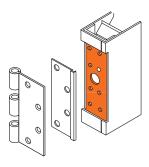
#### Standard hardware preps



Government 86 series mortise lock



Government 161 series cylindrical lock



 $4^{1}/_{2}$ " or 5" full mortised hinge provision

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# Lead-lined doors and frames

# Overview

When safety for your consumers and your employees is important, Republic's lead-lined doors and frames provide maximum radiation protection in hospitals and health clinics.

Lead is effective at scattering gamma rays and x-rays. The aesthetics of Republic's lead-lined products for radiology areas are consistent with other hollow metal openings.

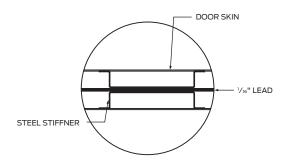
# Features

- Standard 1/16" lead
- Sizes up to 5'0" x 10'0" (single swing) and 10'0" x 10'0" (double swing)
- SDI maximum duty level 2-4 performance level A and B
- Frame jamb depth comes 3"-20"
- Steel stiffened core
- Glass lite kits available

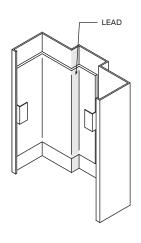




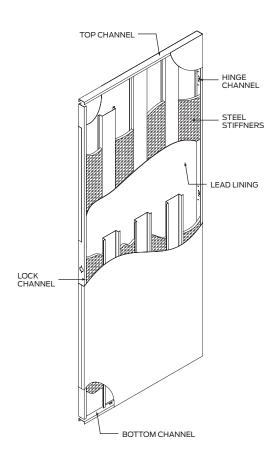
#### Lead-lined door detail



#### Lead-lined frame detail



#### Lead-lined door construction details



For technical information and specifications, view the tech data manual at republicdoor.com.

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# Sound transmission control

Door and frame systems



Acoustical performance of building products, components and systems is an important consideration for engineers, specifiers and building owners. This is especially true in highly populated cities, areas around highways, railroads, airports and high density residential zones. The demand for efficient noise reducing building in these areas are rising constantly.

Using the latest sound absorbing techniques and materials, Republic's engineering professionals have developed a superior sound transmission class (STC) rated assembly consisting of a noticeably lighter weight door (approximately 25% less than current market products) along with standard "rabbeted" hollow metal frames. These assemblies utilize 1 3/4" (proprietary) sound-core doors, standard hollow metal frames and a low profile sealing system that is aesthetically pleasing to the eye and easier to install.



- Single flush doors are available up to STC 52
- Standard hollow metal frames (min. 5<sup>3</sup>/<sub>4</sub>" frame depth)
- Frames available as KD/STC 40 and 42
- Frames provided as welded/ STC 43-52
- Sound resistant spectrum (proprietary construction)
- STC 40-47 furnished with perimeter seals, gaskets and threshold
- STC 48-52 furnishes with perimeter seals, gasketing, surface mounted auto door bottom, threshold and 5"
  Cam-Lift hinges
- Pairs available as STC 47
- All doors tested in fully operable conditions





# Republic's acoustical performance

Republic's sound transmission control (STC) ratings demonstrate how well a door and frame system reduces airborne sound. STC ratings are calculated by taking the transmission loss tested at different frequencies and comparing that performance to the STC standard contour reference. Transmission loss is a measurement of the decibels (dB) volume difference tested on each side of the door and frame system. The chart below illustrates door performance characteristics tested to AST M E90 and E413 standards. The line graph shows a sample of how the sound transmission loss testing of our Republic STC door and frame systems align with the various STC ratings established as a industry reference.

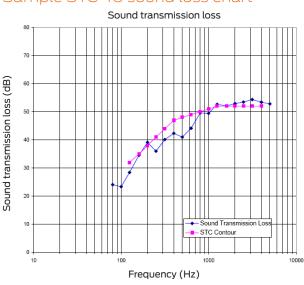
#### Door test performance characteristics per ASTM E90 and E413

#### Transmission loss in dB/Hertz

STC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
38	26	23	27	33	36	35	34	34	39	41	42	44	45	47	45	45	45	45
42	32	28	32	36	35	37	36	38	38	40	42	43	44	45	49	54	56	54
46*	22	28	34	39	40	41	39	47	49	49	49	49	48	48	47	46	45	49
48	24	29	34	40	37	41	43	42	45	50	50	53	53	54	53	54	55	54
50	19	30	36	40	42	45	46	42	49	50	50	51	53	54	56	57	55	55
52	21	29	36	40	44	46	47	44	53	54	54	55	55	56	57	59	59	58

<sup>\*</sup>Pair

#### Sample STC 48 sound loss chart



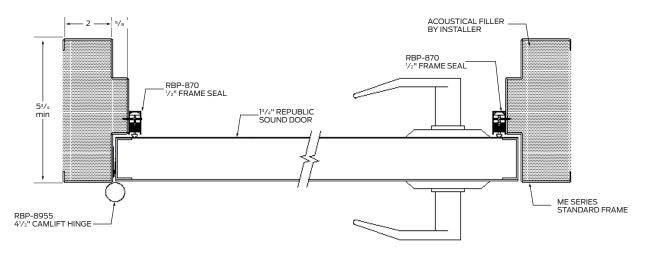
#### Testing and certification:

All door systems with in accordance with: ASTM E 90-09 ASTM E 413-10 ASTM E 1332-10a ASTM E 2235-04

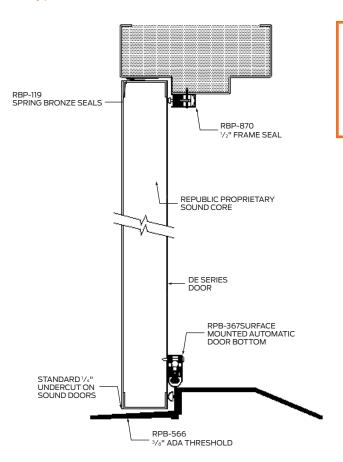
#### Testing was performed by:

Architectural Testing Inc. and Riverbank Acoustical Laboratories

#### Typical Republic STC 48 to 52 systems



#### Typical head and still detail



Republic STC systems can include: threshold, adjustable head and jamb seals (soffit mounted), stationary seals at door rabbet, surface mounted auto door bottom and Cam-lift hinges. Reference republicdoors.com for details and cut sheets.

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