

Durex

MASONRY RESTORATION GUIDE



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Deteriorated Masonry Unit Remove & Replace

Repair Method:
M1-MR03

Description

Deteriorated, loose and improperly set masonry units.

Identification

- Establish an 'acceptance and rejection criteria' for the unit masonry and for the mortar joints.
- Visual observation. Mark for removal all masonry units, which fail to satisfy the established acceptance criteria. Mark all mortar joints, which are incompletely filled, cracked or otherwise do not satisfy the established acceptance criteria.
- Impact testing. Gently hammer tap all masonry units and mark for removal all units which fail to satisfy the established acceptance criteria. Tap a representative runner and a header joint for each 1/10 m2 of the wall. Once a defective joint is located, follow it to sound material. Mark for removal when the established acceptance criteria has not been satisfied.



Substrate Preparation

- Remove all marked masonry units by suitable means. Units that are cracked and/or otherwise deteriorated can be removed by chipping hammer. For units that loose and/or mislaid but are sound and solid, saw-cut the mortar joints are remove the unit.
- Determine whether salvaged units are to be re-used or replaced.
- Remove such surrounding undamaged and sound units that have been damaged during the demolition.
- Remove such surrounding undamaged and sound units that have become loosened during the demolition.
- Where masonry reinforcing has been exposed by the demolition inspect the reinforcing. If the reinforcing is badly corroded remove the adjacent masonry units until sound reinforcing is located.
- Remove all loose materials, mortar and corrosion products from the wall and from the salvaged masonry units.

Repair Steps

1. Install new masonry reinforcing, if required. New reinforcing shall overlap existing by a minimum of 150 mm, each end and the two shall be wired together.
2. Apply the specified rust inhibitor to all exposed metal masonry reinforcing.
3. Immediately prior to installation wet the bonding surfaces of both the wall and the replacement units to reduce suction.
4. Masonry shall be laid plumb and true with respect to the existing masonry.
5. Bond, coursing and jointing of the replacement masonry shall match the existing.

Steps	Products	Mix Design	Coverage
1	New / Clean Used Masonry Units	As Required	Refer to drawings & site Conditions
2	Masonry Mortar Type N		
3	Durex "Leveling Coat"	See instruction in leveling coat applications	Refer to application sheet of selected coating

Efflorescence in Exterior Walls

Repair Method:
M1-MR05

Description

Deterioration caused by efflorescence in antique masonry or concrete walls.

Identification

- Determine soundness of substrate by hammer tapping & mark out hollow sounding areas to be removed
- In areas where plaster parging is still present hammer tap surface to determine soundness of substrate & mark out all loose & weak areas to be removed
- Evaluate existing substrate for integral strength of substrate (weak / chalky substrate may require further treatment prior to application of new repair mortars.



Substrate Preparation

- Remove all deteriorated and loose substrate materials using mechanical means down to a solid structural substrate
- Remove by mechanical means all loose and weak plaster coatings
- Remove all dust and deleterious material including efflorescence, by power washing entire surface so to render substrate clean and sound free of dust and other loose matter
- Allow substrate to dry prior to application of new polymer modified plaster bases and final texture

Repair Steps

1. Replace all weak masonry units with traditional masonry mortar mix
2. Apply a coat of Durex Acrylic Resin Bond surface consolidator mix (ONLY IF REQUIRED)
3. Apply Durex Monocappa polymer modified plaster base to an even and true fine float finish surface
4. Apply selected Durex Architectural Coating protective coating

Steps	Products	Mix Design	Coverage
1	<ul style="list-style-type: none"> • Durex Acrylic Resin Bond • Surface consolidator 	<ul style="list-style-type: none"> • 1 part Durex Acrylic Resin Bond • 3 part potable water 	2 to 3 m ² /litre per coat
2	<ul style="list-style-type: none"> • Durex Monocappa 	<ul style="list-style-type: none"> • 1 bag Monocappa to 4 litres potable water 	1.2 m ² @ 12 mm / bag
3	<ul style="list-style-type: none"> • Durex Architectural Coatings 	Not Required (ready mixed) (see Finishes)	Refer to data sheet of selected coating

Deteriorated Exterior Masonry Walls

Repair Method:
M1-MR06

Description

Exposed deteriorated antique masonry walls, partly covered with traditional antique plaster.

Identification

- Determine soundness of structural masonry substrate & mark out units to be replaced
- In areas where plaster parging is still present hammer tap surface to determine soundness of substrate & mark out all loose & weak areas to be removed
- Identify if moisture is present in structural substrate & its origin (moisture presence may require additional repair work)



Substrate Preparation

- Remove all deteriorated and loose masonry units & replace with new units so to ensure a monolithic solid structural substrate
- Remove by mechanical means all loose and weak plaster coatings down to solid substrate
- Remove all dust and deleterious material, by power washing entire surface so to render substrate clean and sound free of dust and other loose matter
- Allow substrate to dry prior to application of new polymer modified plaster bases and final texture

Repair Steps

1. Replace all weak masonry units with traditional masonry mortar mix
2. Apply a coat of Durex Acrylic Resin Bond surface consolidator mix (ONLY IF REQUIRED)
3. Apply Durex Monocappa polymer modified plaster base to an even and true fine float finish surface
4. Apply selected Durex Architectural Coating protective coating

Steps	Products	Mix Design	Coverage
1	<ul style="list-style-type: none"> • Durex Acrylic Resin Bond • Surface consolidator 	<ul style="list-style-type: none"> • 1 part Durex Acrylic Resin Bond • 3 part potable water 	2 to 3 m ² /litre per coat
2	<ul style="list-style-type: none"> • Durex Monocappa 	<ul style="list-style-type: none"> • 1 bag Monocappa to 4 litres potable water 	1.2 m ² @ 12 mm / bag
3	<ul style="list-style-type: none"> • Durex Architectural Coatings 	Not Required (ready mixed) (see Finishes)	Refer to data sheet of selected coating

Deteriorated Interior Masonry Walls

Repair Method:
M1-MR07

Description

Exposed deteriorated antique masonry walls, partly covered with traditional antique plaster.

Identification

- Determine soundness of structural masonry substrate & mark out units to be replaced
- In areas where plaster parging is still present hammer tap surface to determine soundness of substrate & mark out all loose & weak areas to be removed
- Identify if moisture is present in structural substrate & its origin (moisture presence may require additional repair work)



Substrate Preparation

- Remove all deteriorated and loose masonry units & replace with new units so to ensure a monolithic solid structural substrate
- Remove by mechanical means all loose and weak plaster coatings down to solid substrate
- Remove all dust and deleterious material, by power washing entire surface so to render substrate clean and sound free of dust and other loose matter
- Allow substrate to dry prior to application of new polymer modified plaster bases and final texture

Repair Steps

1. Replace all weak masonry units with traditional masonry mortar mix
2. Apply a coat of Durex Acrylic Resin Bond surface consolidator mix (ONLY IF REQUIRED)
3. Apply Durex Monocappa polymer modified plaster base to an even and true fine float finish surface
4. Apply selected Durex Architectural Coating protective coating

Steps	Products	Mix Design	Coverage
1	<ul style="list-style-type: none"> • Durex Acrylic Resin Bond • Surface consolidator 	<ul style="list-style-type: none"> • 1 part Durex Acrylic Resin Bond • 3 part potable water 	2 to 3 m ² /litre per coat
2	<ul style="list-style-type: none"> • Durex Monocappa 	<ul style="list-style-type: none"> • 1 bag Monocappa to 4 litres potable water 	1.2 m ² @ 12 mm / bag
3	<ul style="list-style-type: none"> • Durex Architectural Coatings 	Not Required (ready mixed) (see Finishes)	Refer to data sheet of selected coating

Vertical Masonry / Concrete Interface Repair

Repair Method:
M1-MR08

Description

Deteriorated, surface spalling concrete with no exposed and / or rusting steel reinforcement

Identification

- Establish an 'acceptance and rejection criteria' for the unit masonry and for the mortar joints.
- Visual observation. Mark for removal all masonry units, which fail to satisfy the established acceptance criteria. Mark all mortar joints, which are incompletely filled, cracked or otherwise do not satisfy the established acceptance criteria.
- Impact testing. Gently hammer tap all masonry units and mark for removal all units which fail to satisfy the established acceptance criteria. Tap a representative runner and a header joint for each 1/10 m² of the wall. Once a defective joint is located, follow it to sound material. Mark for removal when the established acceptance criteria has not been satisfied.



Substrate Preparation

- Remove all mortar from the marked joint. If the removal loosens the masonry unit then it shall be removed and replaced subject to 'Masonry Installation'
- Tools used for the removal must be narrower than the joint.
- Clean out all dust and loose particles with compressed air and leave ready for pointing.

Repair Steps

1. Immediately prior to pointing thoroughly wet joints, allow water to soak into the masonry leaving no standing water.
2. Fill all joints full with pointing mortar, ensuring positive adhesion to all inner surfaces by firmly compacting the joint.
3. Tooling of the joint shall match the existing.

Steps	Products	Mix Design	Coverage
1	New / Clean Used Masonry Units	As Required	Refer to drawings & site Conditions
2	Masonry Mortar Type N		
3	Durex "Leveling Coat"	See instruction in leveling coat applications	Refer to application sheet of selected coating

Top of Balcony Wall Repair

Repair Method:
M1-MR09

Description

Deteriorated, surface spalling plaster & masonry units with no exposed and / or rusting steel reinforcement.

Identification

- Establish an 'acceptance and rejection criteria' for the unit masonry and for the mortar joints.
- Visual observation. Mark for removal all masonry units, which fail to satisfy the established acceptance criteria. Mark all mortar joints, which are incompletely filled, cracked or otherwise do not satisfy the established acceptance criteria.
- Impact testing. Gently hammer tap all masonry units and mark for removal all units which fail to satisfy the established acceptance criteria. Tap a representative runner and a header joint for each 1/10 m² of the wall. Once a defective joint is located, follow it to sound material. Mark for removal when the established acceptance criteria has not been satisfied.



Substrate Preparation

- Remove all mortar from the marked joint. If the removal loosens the masonry unit then it shall be removed and replaced subject to 'Masonry Installation'
- Tools used for the removal must be narrower than the joint.
- Clean out all dust and loose particles with compressed air and leave ready for pointing.

Repair Steps

1. Immediately prior to pointing thoroughly wet joints, allow water to soak into the masonry leaving no standing water.
2. Fill all joints full with pointing mortar, ensuring positive adhesion to all inner surfaces by firmly compacting the joint.
3. Tooling of the joint shall match the existing.

Steps	Products	Mix Design	Coverage
1	New / Clean Used Masonry Units	As Required	Refer to drawings & site Conditions
2	Masonry Mortar Type N		
3	Durex "Leveling Coat"	See instruction in leveling coat applications	Refer to application sheet of selected coating

Through Wall Opening Repair – Utility Fixture

Repair Method:
M1-MR10

Description

Deteriorated, loose and improperly set masonry units.

Identification

- Establish an ‘acceptance and rejection criteria’ for the unit masonry and for the mortar joints.
- Visual observation. Mark for removal all masonry units, which fail to satisfy the established acceptance criteria. Mark all mortar joints, which are incompletely filled, cracked or otherwise do not satisfy the established acceptance criteria.
- Impact testing. Gently hammer tap all masonry units and mark for removal all units which fail to satisfy the established acceptance criteria. Tap a representative runner and a header joint for each 1/10 m² of the wall. Once a defective joint is located, follow it to sound material. Mark for removal when the established acceptance criteria has not been satisfied.



Substrate Preparation

- Remove all mortar from the marked joint. If the removal loosens the masonry unit then it shall be removed and replaced subject to ‘Masonry Installation’
- Tools used for the removal must be narrower than the joint.
- Clean out all dust and loose particles with compressed air and leave ready for pointing.

Repair Steps

1. Immediately prior to pointing thoroughly wet joints, allow water to soak into the masonry leaving no standing water.
2. Fill all joints full with pointing mortar, ensuring positive adhesion to all inner surfaces by firmly compacting the joint.
3. Tooling of the joint shall match the existing.

Steps	Products	Mix Design	Coverage
1	New / Clean Used Masonry Units	As Required	Refer to drawings & site Conditions
2	Masonry Mortar Type N		
3	Durex “Leveling Coat”	See instruction in leveling coat applications	Refer to application sheet of selected coating

Masonry Crack Repair & Tuck Pointing

Description

Deteriorated, surface spalling leveling coat with visible masonry structural movement cracks through the leveling coat.

Identification

- Establish an 'acceptance and rejection criteria' for structural stability of the masonry units and the soundness of the existing leveling coat.
- Visual observation. Mark for removal all masonry units, which fail to satisfy the established acceptance criteria. Mark all mortar joints, which are incompletely filled, cracked or otherwise do not satisfy the established acceptance criteria.
- Impact testing. Gently hammer tap all existing leveling coat and mark for removal all areas which sound hollow and / or fail to satisfy the established acceptance criteria. Mark all cracks extent to be routed out and repaired.



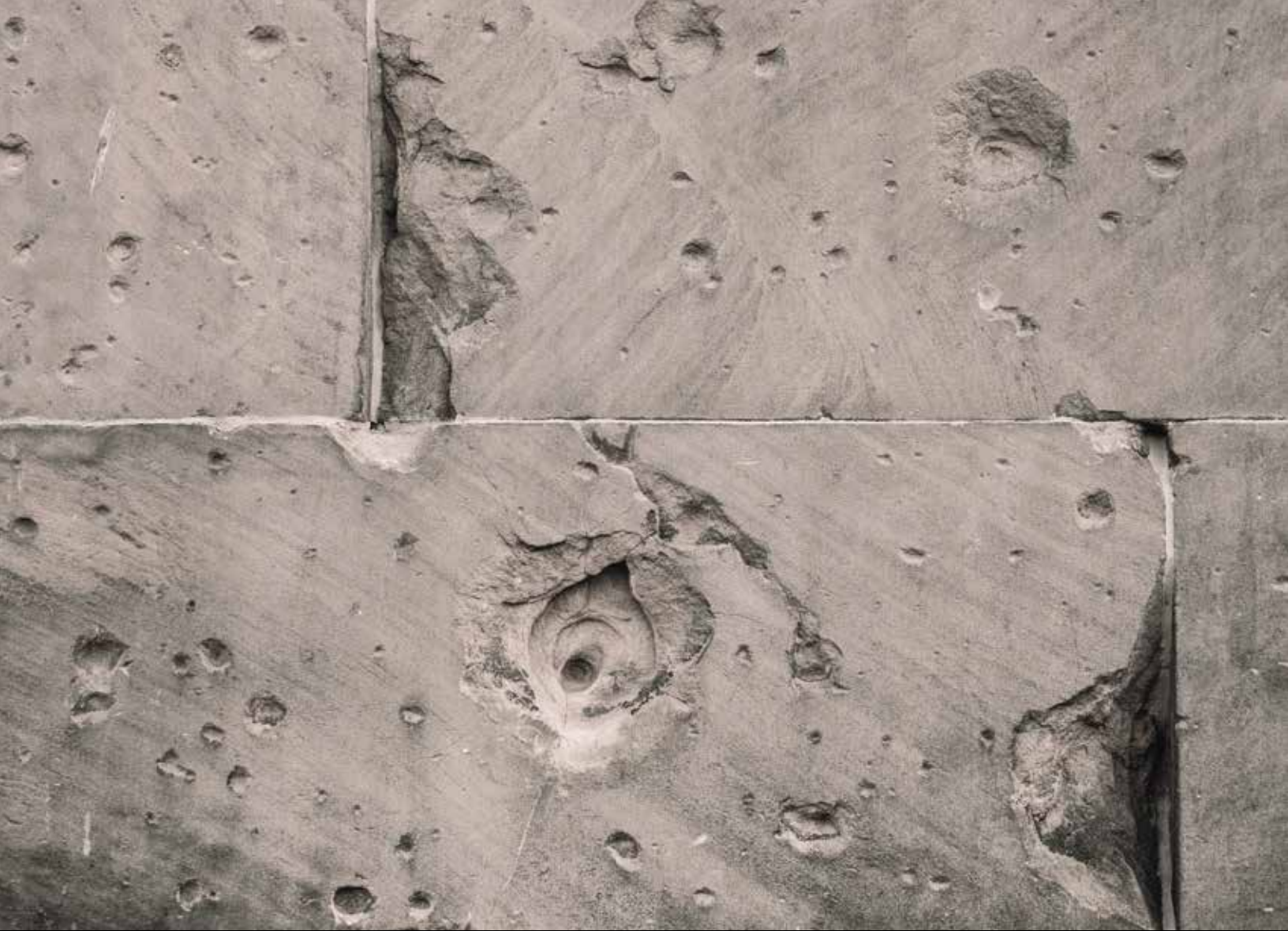
Substrate Preparation

- Remove and replace all marked for removal masonry units.
- Remove all loose leveling coat with high pressure water blasting. If the removal loosens the masonry unit then it shall be removed and replaced subject to 'Masonry Installation'
- Saw-cut to a depth of 12.7-mm (1/2"), wherever possible on either side of the crack through the entire marked length of the crack.
- Rout or chisel out along the length of the crack a square channel not less than 10 mm deep and 20 mm wide. Remove sound concrete between the previously removed concrete and the sawcuts.
- Check for and remove any additional delaminations caused by previous removal.
- Rout out all marked cracks down to solid substrate but not less than Tools used for the removal must be narrower than the joint.
- Clean out all dust and loose particles with compressed air and leave ready for pointing.

Repair Steps

1. Immediately prior to pointing thoroughly wet joints, allow water to soak into the masonry leaving no standing water.
2. Fill all joints full with pointing mortar, ensuring positive adhesion to all inner surfaces by firmly compacting the joint.
3. Tooling of the joint shall match the existing.

Steps	Products	Mix Design	Coverage
1	New / Clean Used Masonry Units	As Required	Refer to drawings & site Conditions
2	Durex Monocappa	<ul style="list-style-type: none"> • 1 bag Durex Monocappa • 4.5 Litres potable water 	60 mL joint @ 10mm x 20mm
3	Durex "Leveling Coat"	See instruction in leveling coat applications	Refer to application sheet of selected coating



www.durabond.com

DURabond

TECHNICAL COATINGS LTD

Head Office

6178 Netherhart Road, Mississauga, Ontario Canada L5T 1B7
Tel 905.565.9283 Fax 905.565.9365 info@durabond.com

Scarborough Office

55 Underwriters Road, Scarborough, Ontario Canada M1R 3B4
Tel 416.759.4474 Fax 416.759.4470 info@durabond.com

Edmonton Office

14345 120th Avenue, Edmonton, Alberta Canada T5L 2R8
Tel 780.451.6364 Fax 780.453.9056 info@durabond.com

Toll Free (North America): 1.877.387.2266

The recommendations and information in this chart/document are for the application of Durex® products manufactured by Durabond, and are based on practical knowledge for general site conditions and uses. This chart is to be used as a reference guide only to identify and display the various products for general, non-site specific applications for a variety of installations. Differences in site conditions, preparations, materials are continuously variable and unknown.

As such, no warranty, guarantee or legal binding relationship is implied whatsoever with these products and systems and no guarantee can be made to their performance. In addition, preparation and condition of the substrate is of such utmost importance that a Durabond Technical Representative must be notified prior to installation of any of the aforementioned products and/or systems.

An installer must always prepare the surface to the recommendations found on the current data sheet of each product written and produced by Durabond Technical Coatings Limited. These data sheets can be obtained from Durabond's website, www.durabond.com, or by contacting a Technical Sales Representative directly.