OAKS
LANDSCAPE PRODUCTS

PROTERRA™ PRODUCT GUIDE

UPDATED AUGUST 2018

> **NEW** Smooth Faced Product Line!

> Now compatible with VESPA software

> Optimized for Gravity or Grid Design

> Mechanical Installation

> Proven Performance for Walls 7m High +

> Modular Design

proterra™

The next generation of engineered commercial retaining wall systems from OAKS is here! Standard, Double and Triple units bring modular stability to the most challenging projects, while Proterra™'s available smooth and split-faced surfaces provide beautiful aesthetics in any setting.

Proterra™, Timberwood (Split & Smooth)

COLORS

NATURAL - Split

GREYFIELD -Split

TIMBERWOOD -Split

NATURAL - Smooth*

GREYFIELD - Smooth*

TIMBERWOOD - Smooth*

*For finish configuration by unit see next page.

product details

When demanding projects call for a complete retaining wall system, Proterra™; complete with its M-Lock technology, ensures a stable structure.

- Appropriate for freestanding, gravity, geosynthetic reinforced, and stabilized backfill walls.
- 3 setback options (vertical, 8° and 16° batter)
- A complete wall system in 2 finish options (split-face or smooth)
- False joints for added patterning on smooth-face
- 3 standard color options with custom colors available on request
- Standard units include built-in cutting guides for half-block and 45°corners
- Coping-Step unit can be used as an attractive stand-alone step system
- Suitable for straight wall or gradual curve applications
- Machine installable

icon legend

WALL TYPES

FREESTANDING

SINGLE-DEPTH GRAVITY

MULTI DEPTH GRAVITY

GEOGRID REINFORCED

STABILIZED BACKFILL

ALIGNMENT

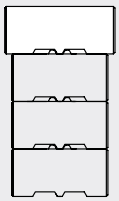
STRAIGHT WALL

INSTALLATION OPTIONS

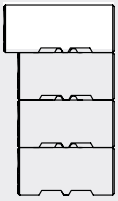
MACHINE INSTALLED

M-Lock Technology

Proterra™ Coping



Smooth
Coping and Wall
(Coping centres over wall)



Split
Coping and Wall
(Coping overhangs one side)

SMOOTH UNITS

Standard Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 375mm (14.76")
Smooth on both faces
Individually Packaged

Double Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 750mm (29.52")
Split on one face, smooth on one face
Packaged with similar Standard Unit

Triple Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 1125mm (44.29")
Smooth on both faces
Individually Packaged

Coping Corner/End Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 430mm (16.92")
Smooth on both faces and closed end
Individually Packaged

Standard Corner Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 375mm (14.76")
Smooth on both faces and closed end
Individually Packaged

Coping-Step Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 430mm (16.92")
Smooth on both faces
Individually Packaged

SPLIT UNITS

Standard Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 375mm (14.76")
Two units split on one face, smooth on one face
One unit split on both faces
Individually Packaged

Double Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 750mm (29.52")
Split on one face, smooth on one face
Packaged with similar Standard Unit

Coping Corner/End Unit
Width 875mm (34.44")
Height 185mm (7.28")
Depth 430mm (16.92")
Split on front face and closed end
Individually Packaged

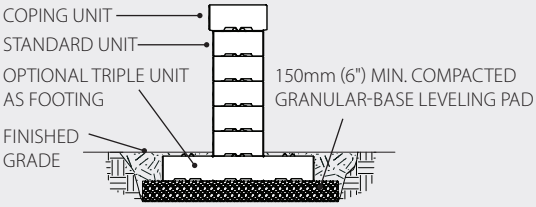
Standard Corner Unit
Width 875mm (34.44")
Height 185mm (7.28")
Depth 375mm (14.76")
Split on front face and closed end
Individually Packaged

Coping-Step Unit
Width 1000mm (39.37")
Height 185mm (7.28")
Depth 430mm (16.92")
Split on one face, smooth on one face
Individually Packaged

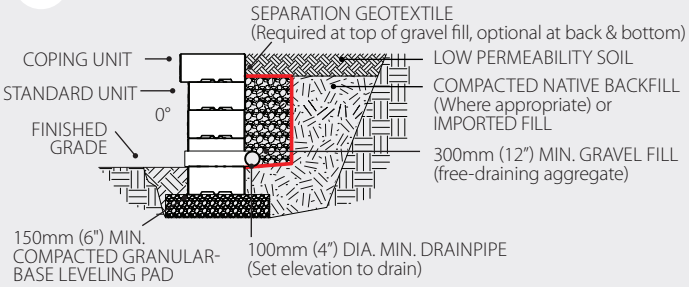
wall systems

AutoCAD versions of these, and several more, Proterra drawings can be downloaded from:

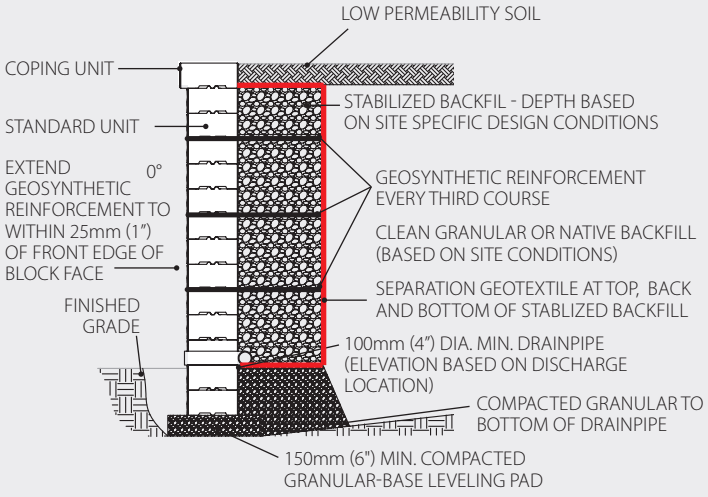
TYPICAL FREESTANDING WALL



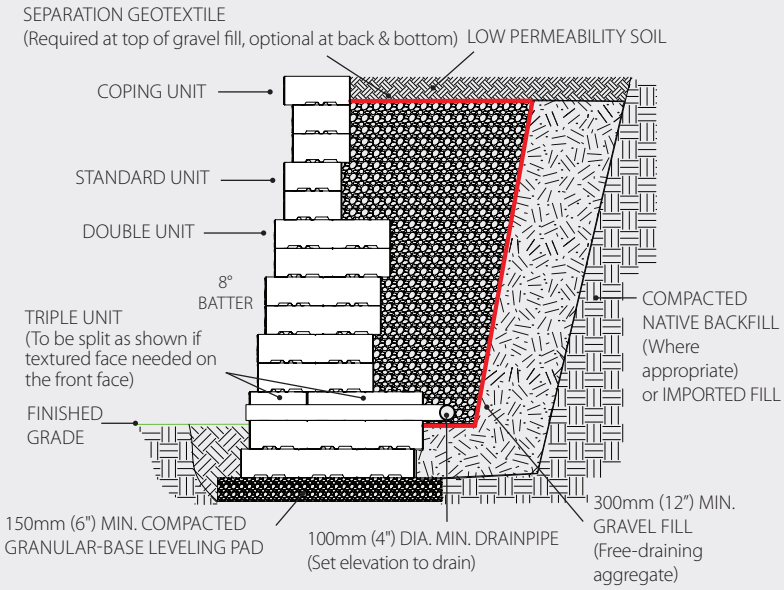
TYPICAL SINGLE DEPTH GRAVITY WALL



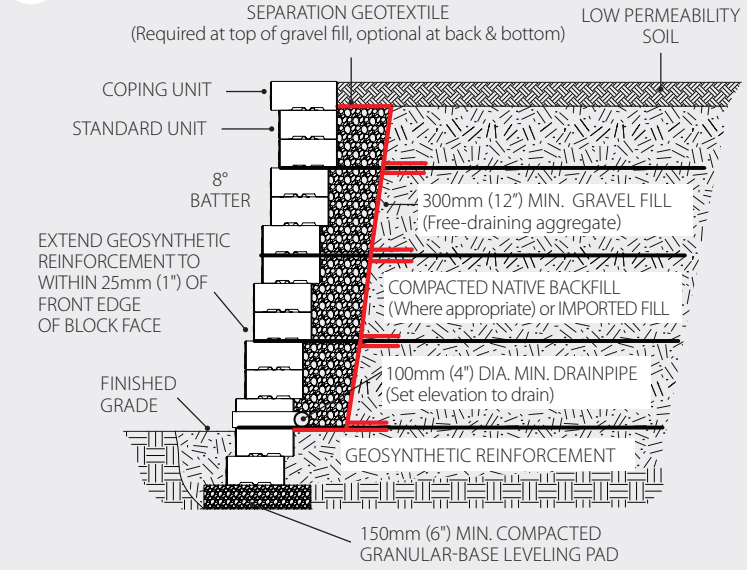
STABILIZED BACKFILL WALL



TYPICAL MULTI-DEPTH GRAVITY WALL

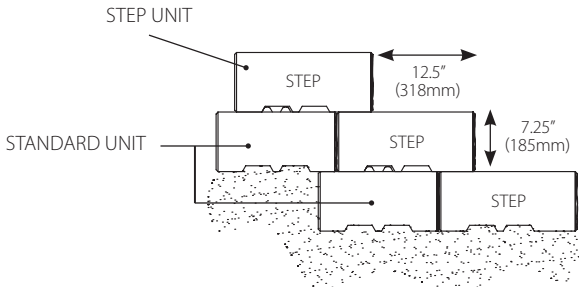


TYPICAL GEOSYNTHETIC REINFORCED WALL



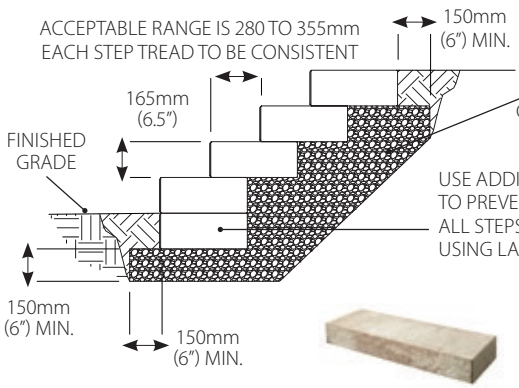
step construction

SAMPLE STEP CONSTRUCTION USING PROTERRA™ STEP UNIT



NOTE: Other layout options available. Where International Accessibility Standards are in effect, we recommend Oaks Aria Step system.

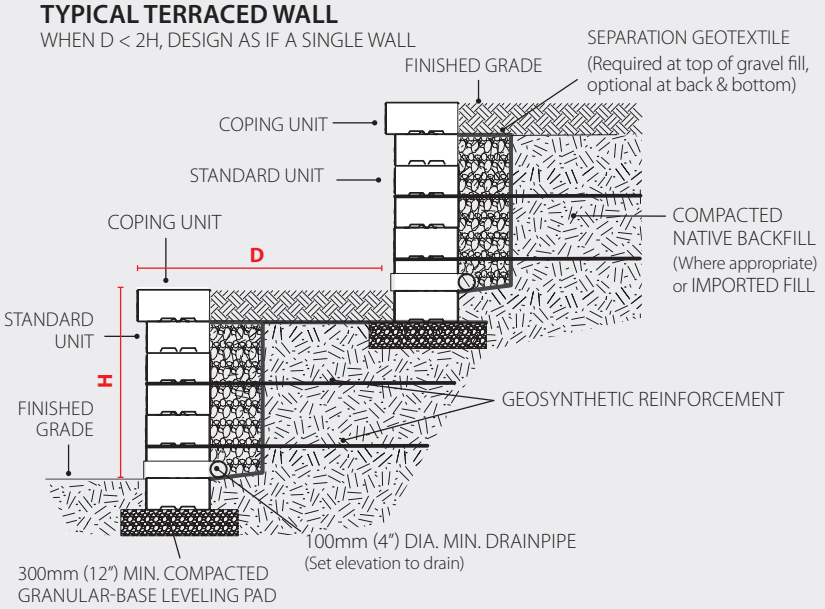
OAKS ARIA STEP (INTEGRATED ACCESSIBILITY STANDARD COMPLIANT)



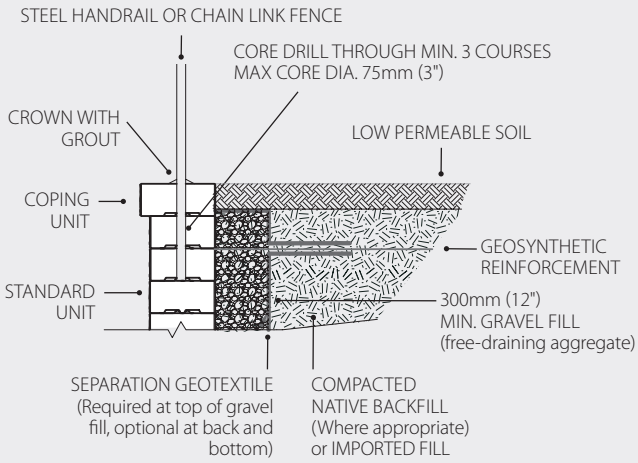
Aria Step Unit
Width 1200mm (47.24")
Height 165mm (6.5")
Depth 400mm (15.75")
Textured on one face, smooth on one face

TYPICAL TERRACED WALL

WHEN D < 2H, DESIGN AS IF A SINGLE WALL

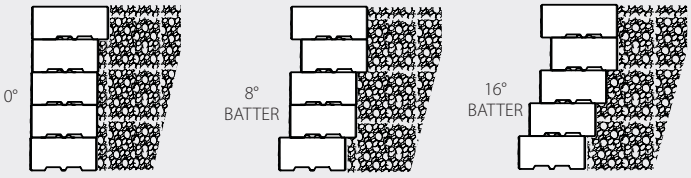


TYPICAL FENCE* CORE DRILLED INTO WALL



*Not applicable for privacy or glass panel fences. Consult with Oaks staff for details on these types of applications.

BATTER OPTIONS



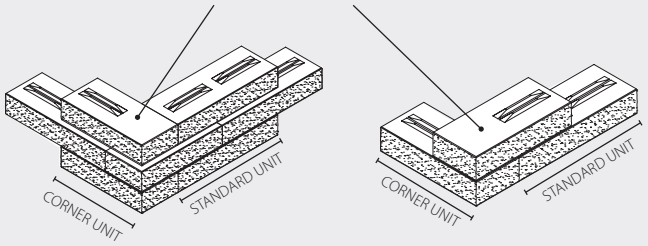
ALTERNATE BATTER 1
(Coping level with face of wall)

ALTERNATE BATTER 2
(Every second course setback)

ALTERNATE BATTER 3
(Every course setback)

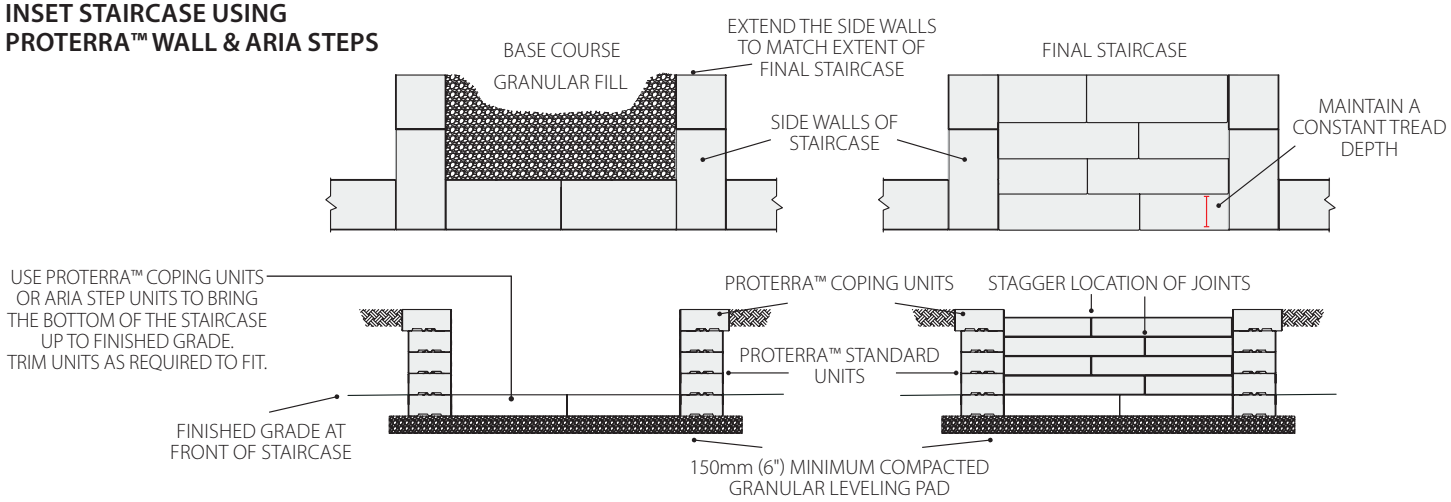
OUTSIDE CORNER DETAIL

Corner blocks are produced for both the Split and Smooth face systems. The finished end prevents the M-Lock grooves from being visible.



Note: These graphics represent preliminary, non site-specific designs. If used for construction, a registered professional engineer must be retained to review and approve the design, confirm site conditions, and inspect construction.

INSET STAIRCASE USING PROTERRA™ WALL & ARIA STEPS



technical info

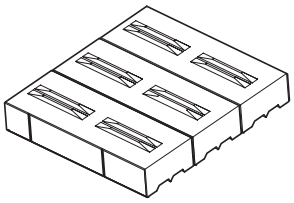
PACKAGING SPECS

		Bundle Specifications				*Per Section Specifications*					
PROTERRA™ (SMOOTH)	**Layers**	**Sq. Ft.**	**Lin. Ft.**	**Pieces**	**Weight**	**Sections**	**Sq. Ft.**	**Lin. Ft.**	**Pieces**	**Weight**	**Weight/Piece**
Standard Unit	3	18	29.5	9	3150	Layer	6	9.8	3	1050	350
Standard	3 Combo	6	9.8	3	3150	Layer	2	3.3	1	1050	350
Double		6	9.8	3			2	3.3	1		700
Triple	3	6	9.8	3	3150	Layer	2	3.3	1	1050	1050
Standard Corner	3	24.6	40.6	9	3150	Layer	8.2	13.5	3	1050	350
Coping-Step Unit	3	12	19.6	6	2388	Layer	4	6.5	2	796	398
Coping Corner/End Unit	3	17.1	28.1	6	2406	Layer	5.7	9.4	2	802	401
PROTERRA™ (SPLIT)	**Layers**	**Sq. Ft.**	**Lin. Ft.**	**Pieces**	**Weight**	**Sections**	**Sq. Ft.**	**Lin. Ft.**	**Pieces**	**Weight**	**Weight/Piece**
Standard Unit	3	18	29.5	9	3150	Layer	6	9.8	3	1050	350
Standard	3 Combo	6	9.8	3	3150	Layer	2	3.3	1	1050	350
Double		6	9.8	3			2	3.3	1		700
Standard Corner	3	22.4	36.9	9	2772	Layer	7.4	12.3	3	924	308
Coping-Step Unit	3	12	19.6	6	2388	Layer	4	6.5	2	796	398
Coping Corner/End Unit	3	15.6	25.7	6	2088	Layer	5.2	8.6	2	696	348

USAGE SUMMARY

	Connector Type	Batter Options							
PROTERRA™									
Standard Unit	Split tongue	0°, 8° or 16°	•	•	•	•	•	•	•
Double Unit	Split tongue	0°, 8° or 16°			•			•	•
Triple Unit	Split tongue	0°, 8° or 16°			•			•	•

proterra™ (split) details

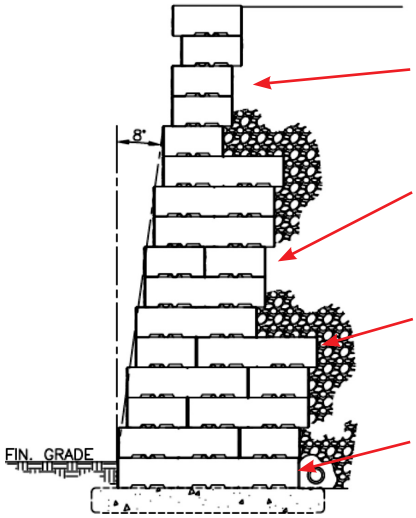


The image above is how double and triple units are manufactured.

No split = Smooth face triple

One split = One double and one standard. As each unit has one smooth and one split face, they can be used for both theZ smooth and split face product lines.

Two split = Three Standard units. Two units have one smooth / one split face, while one unit has two split faces. Recommended for use in the split face wall system only unless all the double split units are used for the buried sections of the wall, or there is a split face band(s) incorporated into the smooth wall face.



WHEN ORDERING DOUBLES/TRIPLES

Each double comes with a standard unit. For jobs requiring more standards than doubles, only order the difference in standards needed.

When more doubles than standards are required, use the extra standards to create double units – making sure they are sandwiched between full double unit.s

Triple units do not have a split face. Use alternating Double Combos where the exposed face needs to be split.

Triples can be used in buried portions of a split face wall as it is easier to level the single unit.

A digital version of this form can be downloaded from www.OAKSpavers.com/resources/design-tools-guidelines

retaining wall design request form

GENERAL INFORMATION

Applicant: _____ Date: _____

Contact Name: _____ Wall Installer: _____

Phone #: _____ Wall Installer Contact #: _____

Email: _____ Wall Installer Email: _____

Applicant Type: Architect ☐ Engineer ☐ Landscape Architect ☐ Contractor ☐

Home Owner ☐ Developer ☐ Other _____

PROJECT INFORMATION

Project Name: _____

Project Address: _____

Contact: _____

Site Plan Available: Yes ☐ No ☐ Geotechnical Report Available: Yes ☐ No ☐

DESIGN SERVICE INFORMATION

Date Needed: _____ Bid/Start Date: _____

Service Requested: Wall Design for Quoting ☐ Drawing for Building Permit Application ☐

Construction Drawings ☐

Product Requested: Proterra ☐ Ortana/Ortana Plus ☐ Ortana Extended ☐

Wall Type: Single Unit Gravity ☐ Multi Unit Gravity ☐ Stabilized Backfill ☐ Geogrid Reinforced ☐

BASIC SITE INFORMATION

Number of walls on project: _____

Maximum height: _____

Surcharge at top of wall: Landscape/Pedestrian ☐ Vehicular ☐ Slope ☐

Building ☐ Pool ☐ Other _____

Tiered: Yes ☐ No ☐

If yes, provide tier information (setback, heights, # of tiers) _____

_____

_____

Wall batter: *(check the appropriate boxes)*

	0°	7°	8°	16°
Ortana			☒	☒
Proterra™ (split)		☒		
Proterra™ (smooth)		☒		

Rail or fence at top of wall? Yes ☐ No ☐ If yes, type of rail or fence: _____

Site soil description: (if geotechnical report not available) Clean sands and gravel (ø=36°) ☐ Sands, sandy silts (ø=32°) ☐ Silts, sandy and silty clays (ø=27°) ☐

Slope below wall: Yes ☐ No ☐ How steep: _____ How high: _____

Site soil used for Infill? Yes ☐ No ☐ Engineered or native? _____

Water application? Yes ☐ No ☐ Details: _____

Special site requirements/Information: _____

OAKS
LANDSCAPE PRODUCTS

Brampton Brick Limited

Brampton
225 Wanless Drive
Brampton, ON L7A 1E9

Boisbriand
4200, Marcel-Lacasse
Boisbriand, QC J7H 1N3

Brockville
3007 County Rd. #29
PO Box 143 Brockville,
ON K6V 5V2

Hillsdale
2108 Flos Road Four East,
Hillsdale, ON L0L 1V0

Markham
455 Rodick Road
Markham, ON L6G 1B2

Detroit
51744 Pontiac Trail
Wixom, MI 48393

Farmersburg
1256 East County Rd. 950 N.
Farmersburg, IN 47850

OAKSpavers.com

1.800.709.OAKS (6257) (Canada)
1.800.876.OAKS (6257) (USA)

HORTICULTURAL TRADES ASSOCIATION landscape ontario.com Green for Life!

icpi Interlocking Concrete Pavement Institute

NATIONAL CONCRETE MASONRY ASSOCIATION Sustainable Concrete Products for Structures and Hardscapes

Product representations shown in this publication are intended to convey the general color, texture and appearance of the product. Variations may occur in the manufacturing and printing process. Always select from an actual product sample.

4KE/07/17