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# ASA Catalog of Services and Products

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[www.Shotcrete.org](http://www.Shotcrete.org)

(248) 848-3780

38800 Country Club Drive  
Farmington Hills, MI 48331

**AMERICAN**   
**SHOTCRETE**  
**ASSOCIATION**

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## Who We Are

The American Shotcrete Association (ASA), formed in March 1998, is a nonprofit organization of contractors, manufacturers, engineers, owners, and others with a common interest in promoting the use of shotcrete. The purpose of the organization, as stated in its bylaws, is as follows:

- Educate the construction community as to the benefits of the use of shotcrete;
- Encourage and promote the use of shotcrete by providing useful and accurate information to the concrete specifying and purchasing communities;
- Support and promote the education and training of those in the shotcrete industry and the proper methods, materials, and techniques to obtain high-quality shotcrete; and
- Strive to maintain the highest standards of ethics and conduct for the members of the association.

The ASA Committee Meetings are held three (3) times a year in the Spring, Fall, and in conjunction with World of Concrete, of which the ASA is a cosponsor. Committee meetings are open to the public and ASA welcomes and encourages the participation of all interested parties in the shotcrete industry.

The association's many standing committees and corresponding missions include:

### **EDUCATION COMMITTEE**

Mission Statement: To provide shotcrete education, training, and certification.

### **SAFETY SUBCOMMITTEE**

Mission Statement: To explore and promote safety issues within the shotcrete industry.

### **MEMBERSHIP/MARKETING COMMITTEE**

Mission Statement: To broaden the ASA membership base and ensure that shotcrete has its "market share" in a national arena.

### **POOL & RECREATIONAL SHOTCRETE COMMITTEE**

Mission Statement: To educate and promote the proper use and application of shotcrete to the swimming pool and recreational shotcrete industry.

### **PUBLICATIONS COMMITTEE**

Mission Statement: To oversee the publication format and publication content for the promotion of association activities.

### **UNDERGROUND COMMITTEE**

Mission Statement: To explore and promote underground issues within the shotcrete industry.

### **SUSTAINABILITY COMMITTEE**

Mission Statement: To compile and distribute information on the sustainability of shotcrete construction.



# Membership

ASA membership is your chance to participate in the association's efforts to increase the quality and quantity of shotcrete specified while building a network of contacts and resources among your fellow shotcrete professionals.

ASA is dedicated to providing the association's members and the industry with the most accurate and reliable information related to shotcrete. This dedication provides the member with the opportunity to achieve greater success within this burgeoning industry.

Each type of ASA membership and some of their many benefits are listed on the next page.

To submit your membership application, go to [www.shotcrete.org](http://www.shotcrete.org) or complete and mail the application below.



Be a part of the Shotcrete solution—  
Become an ASA Member today!



38800 Country Club Dr., Farmington Hills, MI 48331  
Phone: (248) 848-3780 Fax: (248) 848-3740  
E-mail: [info@shotcrete.org](mailto:info@shotcrete.org) Web site: [www.shotcrete.org](http://www.shotcrete.org)

## MEMBERSHIP APPLICATION

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_ Sponsor (if applicable) \_\_\_\_\_

Address \_\_\_\_\_

City / State or Province / Zip or Postal Code \_\_\_\_\_

Country \_\_\_\_\_ Phone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_ Web site \_\_\_\_\_

### Please indicate your category of membership:

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Corporate                                    | \$750  | <i>NOTE: Dues are not deductible as charitable contributions for tax purposes, but may be deductible as a business expense</i> |
| <input type="checkbox"/> Individual                                   | \$250  |  |
| <input type="checkbox"/> Additional Individual from Corporate Member  | \$100  |  |
| <input type="checkbox"/> Employees of Public Authorities and Agencies | Free   |  |
| <input type="checkbox"/> Nozzleman                                    | \$50   |  |
| <input type="checkbox"/> Retired                                      | \$50   |  |
| <input type="checkbox"/> Student                                      | Free (Requires copy of Student ID card or other proof of student status) |  |

### Payment Method:

MC     Visa     Check enclosed (U.S. \$)

Card# \_\_\_\_\_ Expiration date \_\_\_\_\_

Name on card \_\_\_\_\_ Signature \_\_\_\_\_



## Education & Certification

### ACI Shotcrete Nozzleman Certification Program

Design engineers need a way to ensure that the quality of shotcrete placed on their projects meets with their design specifications. Because shotcrete can be affected by the skill of the nozzleman, certain basic requirements need to be demonstrated.

The American Concrete Institute (ACI) established the shotcrete nozzleman certification program to establish a basic skill level of shotcrete nozzling. A design engineer can require the use of ACI nozzleman certification in their specifications. This gives the engineer heightened confidence in the finished shotcrete product.

Education, testing, and certification are provided by sponsoring groups authorized by ACI. ASA is the primary sponsoring group for both Education and Testing sessions. ACI issues the shotcrete nozzleman credentials.

For program descriptions and details on how to arrange for an education and/or certification session, visit:

[www.shotcrete.org/ASAcertification.htm](http://www.shotcrete.org/ASAcertification.htm)

or

[www.ACICertification.org](http://www.ACICertification.org)

### ASA Underground Shotcrete Education Program

Mine operators, tunnel owners, and contractors expressed an interest in educating the workforce involved with using shotcrete as a ground support method to improve and ensure the quality of their constructed projects.

This ASA program provides the basics of the shotcrete process to include materials selection and testing, basic equipment requirements, skill requirements for the nozzlemen and crew, proper shotcreting techniques, and safety considerations in the underground environment.

For more information on this program and instructions on scheduling an ASA Underground Shotcrete Education Program, call (248) 848-3780 or visit [www.shotcrete.org](http://www.shotcrete.org).



### Shotcrete Nozzleman Education and Certification Program



## Outstanding Shotcrete Project Awards

Pursuing an ASA Outstanding Shotcrete Project Award is not only a smart move for your organization, but also good for the shotcrete industry. The ASA Award program offers your organization a unique and unmatched amount of exposure. In addition, the awards program and the annual awards issue of *Shotcrete* magazine are a very important tool used to inform and educate the construction world about the versatility and benefits of the shotcrete method of placing concrete.

**For more information and to view articles on past award winners, visit:**

[www.shotcrete.org/ASAoutstandingprojects.htm](http://www.shotcrete.org/ASAoutstandingprojects.htm).

### Categories

Six categories were chosen to ensure that all areas of the shotcrete industry have the opportunity to be nominated for an award. These categories are:

- Architecture
- Infrastructure
- International Projects
- Pool & Recreational
- Rehabilitation & Repair
- Underground



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## Graduate Scholarship Program

The purpose of the ASA Graduate Scholarship Program is to attract, identify, and assist outstanding graduate students pursuing careers within the field of concrete with a significant interest in the shotcrete process.

Two \$3000 (USD) awards are available for each academic year. One scholarship will be awarded to a graduate student within the United States and the second scholarship will be awarded to a graduate student in Canada.

Obtain an application and requirements at: [www.shotcrete.org/ASAscholarships.htm](http://www.shotcrete.org/ASAscholarships.htm).



## Shotcrete Magazine

*Shotcrete*, the quarterly publication of ASA, is the leading magazine of the shotcrete industry.

Combined readership of the printed and electronic versions is over 17,000 and reaches designers, specifiers, and purchasers of shotcrete in 100+ countries. This full-color, award-winning magazine features:

- Case studies
- Technical articles
- News of the shotcrete industry
- New product information
- and a host of other features

*Shotcrete* magazine is also sent to all subscribers in an electronic format.



*Shotcrete* magazine is designed to educate and promote the use of shotcrete as a method of placing concrete. To subscribe to *Shotcrete*, access article archives, or find out about advertising opportunities, call (248) 848-3780 or visit [www.shotcrete.org](http://www.shotcrete.org).

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## ASA Buyers Guide

The ASA Buyers Guide is available free to the concrete industry at [www.shotcrete.org/BuyersGuide](http://www.shotcrete.org/BuyersGuide).

The ASA Buyers Guide provides an important tool for companies and individuals with shotcrete needs to reach the companies who could serve them. Companies who continually prove their commitment to the shotcrete process by supporting ASA through corporate membership have the opportunity to be listed in the ASA Buyers Guide.



This service receives over 5000 searches a year and enables users to search for companies based on products and/or services related to shotcrete across seven main categories:

- Admixtures
- Cement & Pozzolanic Materials
- Consulting
- Contractors
- Equipment
- Fibers
- Shotcrete Materials/Mixtures

Searches can be further refined using over 100 subcategories and geographic criteria.



## Products

### Shotcrete Specifiers Education Tool, v2

The **Shotcrete Specifiers Education Tool, version 2**, is designed to provide specifiers with a better understanding of the shotcrete process and important components of a shotcrete specification. The content provided on this 4 gigabyte USB flash drive now includes:

**PowerPoint Presentations:**

- Shotcrete for Repair and Rehabilitation of Concrete Structures
- Shotcrete for Underground Construction

**Brochures:**

- Sustainability of Shotcrete
- Shotcrete, A Proven Process
- The History of Shotcrete (by George Yoggy)

**Video:**

- Shotcrete Versatility Plus (World of Concrete Mega Demo)



**Order Code: SRR**

ASA Members: \$25.00

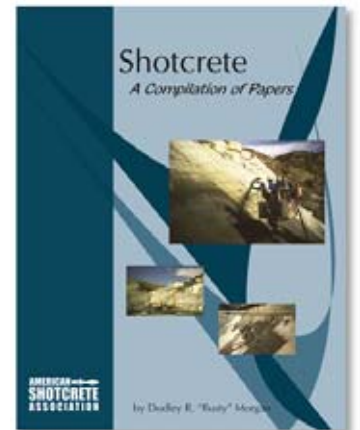
Nonmembers: \$45.00

### Shotcrete: A Compilation of Papers

This 424-page hardcover book, *Shotcrete: A Compilation of Papers*, is a collection of the most important papers concerning shotcrete by Dudley R. "Rusty" Morgan, PhD, PEng, FACI, FCAE.

Topics in the book include:

- Shotcrete Research and Development
- Freezing-and-Thawing Durability of Shotcrete
- Fiber-Reinforced
- Shotcrete for Ground and Underground Support
- Infrastructure Rehabilitation with Shotcrete
- Supplementary Shotcrete Publications



**Order Code: SCP**

ASA Members: \$50.00

Nonmembers: \$85.00



## CCS-4(08): Shotcrete for the Craftsman

This 85-page publication describes and illustrates how to properly place quality shotcrete. Beginning with an explanation of what shotcrete is, chapters cover equipment, materials, environmental conditions, inspection and surface preparation, placement principles and techniques, finishing and tolerances, safety, and testing.



**Order Code: CCS408**

ASA Members: \$15.00

Nonmembers: \$20.00

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## CP-60 (09): Craftsman Workbook For ACI Certification of Shotcrete Nozzlemen

This 124-page workbook contains information about the ACI Shotcrete Nozzleman Certification program as well as the resources referenced by the certification examination. This program covers basic concrete by the technology information excerpted from ACI CCS-1, and a full reprint of ACI CCS-4.

**Contents:** Program Information, Resource Materials, Study Questions, and Checklists

Available in English and Spanish:

**English version Order Code: CP60**

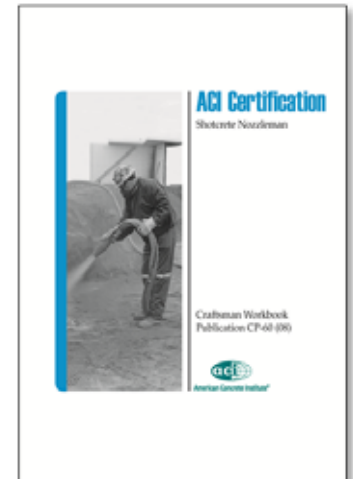
ASA Members: \$58.00

Nonmembers: \$72.00

**Spanish version Order Code: CP60S**

ASA Members: \$58.00

Nonmembers: \$72.00



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## Shotcrete Use in Pool & Recreational Projects—A Compilation of Articles from Shotcrete magazine

This 25-page black and white soft-cover book, "Shotcrete Use in Pool & Recreational Projects—A Compilation of Articles from *Shotcrete* magazine," is a compilation of eight previously published papers from ASA's *Shotcrete* magazine.



**Order Code: PRPUS**

ASA Members: \$9.00

Nonmembers: \$14.00

## ASA Pocket Safety Manual

- 22-page, four-color, pocket-sized (4 x 6 in.) safety manual
- Contains photos, checklists, and safety tips
- Also includes tear-out employee compliance sign-off sheet
- Sold in any quantity

Available in English, Spanish, and French:

**English version Order Code: PSMAN**

**Spanish version Order Code: PSMANS**

**French version Order Code: PSMANF**

ASA Members: \$3.00 each

Nonmembers: \$5.00 each



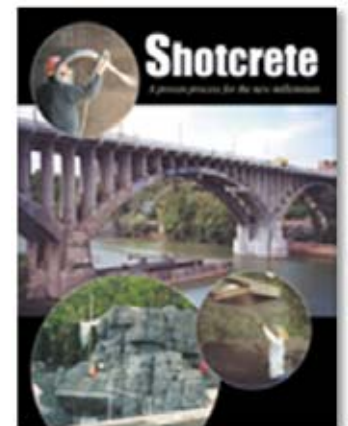
## Shotcrete Brochure

This 16-page full-color brochure serves as a great marketing tool to introduce the shotcrete process to your specifiers and project owners. Topics include: history of shotcrete, features & benefits, methods of application, repair & restoration, ground support, and new construction.

Published by the Concrete Institute of Australia, 2008

**Order Code: BOOKLET**      ASA Members: \$2.00 each      Nonmembers: \$3.00 each

*Bulk brochures are sold in bundles of 25  
\$50.00 per bundle for ASA Members;  
\$75.00 per bundle for nonmembers.*



## Infrastructure Repair & Rehabilitation Using Shotcrete—ASA Compilation #4

This 37-page black and white soft-cover book, "Infrastructure Repair & Rehabilitation Using Shotcrete—ASA Compilation #4," is a compilation of nine previously published papers from ASA's *Shotcrete* magazine.

**Order Code: IRRUS**

ASA Members: \$9.00

Nonmembers: \$14.00



## Sustainability Brochure

Sustainability continues to grow as a driving force in the decision-making of owners and specifiers regarding construction materials and placement strategies.

“Sustainability of Shotcrete” is a timely and valuable resource to promote the shotcrete process and educate potential clients and owners. The document can also be submitted with project bids to identify and substantiate the sustainability advantages of the shotcrete process.

This 10-page, full-color brochure identifies and discusses the numerous shotcrete sustainability advantages and also includes case studies demonstrating these advantages in both new construction and repair.

The brochure’s content was originally developed by the ASA Sustainability Committee for use in the United States Green Concrete Council (USGCC) book titled *The Sustainable Concrete Guide—Applications*. The full book can be ordered from [www.concrete.org](http://www.concrete.org).

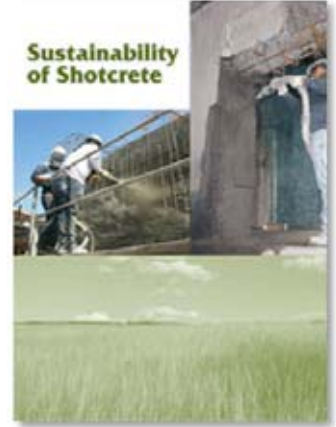
ASA Members: \$4.95                      Nonmembers: \$6.95

*The brochure is also sold in bundles of 10*

ASA Members: \$39.95                      Nonmembers: \$54.95

*The brochure is also sold in bundles of 25*

ASA Members: \$69.95                      Nonmembers: \$99.95



## ASA Baseball Cap

Khaki and army green colored baseball caps. Features a black and green embroidered ASA logo. One size fits all.

**Order Code: CAP**

ASA Members: \$9.00                      Nonmembers: \$14.00



## ASA Decal Sticker

6 x 4 in.

**Order Code: DECAL**

ASA Members: \$3.00                      Nonmembers: \$4.00



## ASA Hard Hat Sticker

2-1/2 x 1-3/4 in. Reflective.

**Order Code: STICKER**

ASA Members: \$1.00                      Nonmembers: \$1.50



# Product Order Form

Orders can be placed online at [www.shotcrete.org](http://www.shotcrete.org) or you can complete this form and mail or fax it directly to ASA at the address or fax number listed below.

Shipping Information		
First Name:	Last Name:	
Company:		
Street Address:		
City:	State:	Zip:
Phone:	Fax:	
E-mail:		

Order Information		
Order Code	Quantity	Cost
<b>Subtotal</b>	<b>\$</b>	
*No shipping charges if within the U.S.	<b>\$</b>	
<b>Total</b>	<b>\$</b>	

Payment Information	
Payment Type	<input type="checkbox"/> Visa <input type="checkbox"/> MasterCard <input type="checkbox"/> Check
Credit Card Number	
Expiration	
Signature	

**If you are paying via check, please mail form with payment to:**  
 American Shotcrete Association  
 38800 Country Club Dr  
 Farmington Hills, MI 48331

**If you are paying via credit card, please FAX form to**  
 248-848-3740.

**IMPORTANT NOTE:** If shipment is for outside of the United States, you must contact ASA at 248-848-3780 for shipping options and price.

**Thank You For Your Order!**

**Visit the American Shotcrete Association Web Site:**  
[www.Shotcrete.org](http://www.Shotcrete.org)

- ASA Buyers Guide
- Frequently Asked Shotcrete Questions and Answers
- Technical Inquiry Submission
- Shotcrete Video Demos
- Outstanding Shotcrete Project Awards
- Shotcrete magazine Archive
- Products
- Education
- Certification
- and Much More





## Bibliography of Shotcrete References

*Note: Many of these documents are revised frequently.*

### American Concrete Institute (ACI) [www.concrete.org](http://www.concrete.org)

- ACI 506R, "Guide to Shotcrete"
- ACI 506.1R, "Guide to Fiber-Reinforced Shotcrete"
- ACI 506.2, "Specification for Materials, Proportioning, and Application of Shotcrete"
- ACI 506.4R, "Guide for the Evaluation of Shotcrete"
- ACI 506.5R, "Guide for Specifying Underground Shotcrete"
- ACI C-06, "Application and Use of Shotcrete"
- ACI CCS4, "Shotcrete for the Craftsman"
- ACI CP60, "Shotcrete Nozzleman Craftsman Workbook"
- ACI SP-14, "Shotcreting," 224 pp.

### American Association of State Highway and Transportation Officials (AASHTO) <http://bookstore.transportation.org>

- AASHTO-AGC-ARTBA Joint Committee - Task Force 37 Report, "Guide Specifications for Shotcrete Repair of Highway Bridges," February 1998, (TF37-1), 122 pp.
- AASHTO-AGC-ARTBA Joint Committee- Task Force 37 Report, "Inspector's Guide for Shotcrete Repair of Bridges," December 1999, (IGSRB-1), 80 pp.

### ASTM International (ASTM) [www.astm.org](http://www.astm.org)

- C42/C42M - Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
- C1116/C1116M - Standard Specification for Fiber-Reinforced Concrete
- C1385/C1385M - Standard Practice for Sampling Materials for Shotcrete
- C1398 - Standard Test Method for the Laboratory Determination of the Time of Setting of Hydraulic Cement Mortars Containing Additives for Shotcrete by the Use of Gillmore Needles
- C1140 - Standard Practice for Preparing and Testing Specimens from Shotcrete Test Panels
- C1141/C1141M - Standard Specification for Admixtures for Shotcrete
- C1436-08 - Standard Specification for Materials for Shotcrete
- C1480/C1480M - Standard Specification for Packaged, Pre-Blended, Dry, Combined Materials for Use in Wet or Dry Shotcrete Application
- C1550 - Standard Test Method for Flexural Toughness of Fiber Reinforced Concrete (Using Centrally Loaded Round Panel)
- C1604/C1604M - Standard Test Method for Obtaining and Testing Drilled Cores of Shotcrete
- C1609/C1609M - Standard Test Method for Flexural Performance of Fiber-Reinforced Concrete (Using Beam With Third-Point Loading)
- STP- 169D - "Significance of Tests and Properties of Concrete and Concrete-Making Materials," 2006, J. Lamond and J. Pielert Editors – Chapter 53 – "Shotcrete", John H. Pye, pp. 616-624.

### International Tunneling Association (ITA) [www.ita-aites.org](http://www.ita-aites.org)

#### **WORKING GROUP 12 – Shotcrete Use – Publications:**

- Report: Shotcrete in Tunneling: Status Report, 1991
- Report: Shotcrete for Rock Support – Guidelines and Recommendations – A compilation, 1992
- Shotcrete for Underground Support: State-of-the-Art Report with Focus on Steel-Fiber Reinforcement, 1992, 8 pp.
- Shotcrete for Rock Support: A Summary Report on the State-of-the-Art in 15 Countries, 1993, 29 pp.

## International Tunneling Association (ITA) [www.ita-aites.org](http://www.ita-aites.org), continued

- Health and Safety in Shotcreting, 1996, 18 pp.
- Sprayed concrete for final linings: ITA Working Group Report, 2001, 14 pp.
- Lining of Tunnels under Groundwater Pressure, 2002, 6 pp.
- Shotcrete and Waterproofing for Operational Tunnels, 2005
- Shotcrete for Rock Support: A Summary Report on the State of the Art

## American Society of Civil Engineers (ASCE) [www.asce.org](http://www.asce.org)

### Conference Proceedings

*Note: Some Proceedings are out of print; however, individual papers may be available.*

- Use of Shotcrete for Underground Structural Support, Engineering Foundation Conference, South Berwick, ME, July 16-20, 1974, 467 pp. (Also see ACI SP-45)
- Shotcrete for Ground Support, Engineering Foundation Conference, Easton, MD, Oct. 4-8, 1976, 763 pp. (see ACI SP-54)
- Shotcrete for Underground Support V, Engineering Foundation Conference, Uppsala, Sweden, June 3-7, 1990, J. Sharp and T. Franzen, Editors, 560 pp.
- Shotcrete for Underground Support VI, Engineering Foundation Conference, Niagara-on-the-Lake, ON, Canada, May 2-6, 1993, D. Wood and D. Morgan, Editors, 198 pp.
- Shotcrete for Underground Support VII, Engineering Foundation Conference, Telfs, Austria, June 11-15, 1995, H. Kdapperich, R. Pöttler, and J. Willocq, Editors, 313 pp.
- Shotcrete for Underground Support VIII, United Engineering Foundation Conference, São Paulo, Brazil, April 11-15, 1999, T. Celestino and H. Parker, Editors, 349 pp.
- Shotcrete for Underground Support X, Engineering Conferences International Conference, Whistler, BC, Canada, Sep 12-16, 2006, D. Morgan and H. Parker, Editors, 382 pp.

## Norwegian Concrete Association (NB) [www.betong.net](http://www.betong.net)

- "Sprayed Concrete: Modern Use of Wet Mix Sprayed Concrete for Underground Support," *Proceedings*, International Symposium on Sprayed Concrete, Fagernes, Norway, Oct. 1993, R. Kompen, O. Opsahl, and K. Berg, Editors, 464 pp.
- "Sprayed Concrete: Modern Use of Wet Mix Sprayed Concrete for Underground Support," *Proceedings*, Second International Symposium on Sprayed Concrete, Gol, Norway, Sept. 23-26, 1996, 433 pp.
- "Sprayed Concrete: Modern Use of Wet Mix Sprayed Concrete for Underground Support," *Proceedings*, Third International Symposium on Sprayed Concrete, Gol, Norway, Sept. 26-29, 1999, 525 pp.
- "Sprayed Concrete: Modern Use of Wet Mix Sprayed Concrete for Underground Support," *Proceedings*, Fourth International Symposium on Sprayed Concrete, Davos, Switzerland, Sept. 22-26, 2002, 365 pp.
- "Sprayed Concrete: Modern Use of Wet Mix Sprayed Concrete for Underground Support," *Proceedings*, Fifth International Symposium on Sprayed Concrete, Lillehammer, Norway, April 21-24, 2008, 346 pp.

### Other Volumes

- "Shotcrete—A Compilation of Papers," by Dudley R. 'Rusty' Morgan, American Shotcrete Association, Farmington Hills, MI, 2008, 424 pp. [www.shotcrete.org](http://www.shotcrete.org)
- "Tunneling is an Art," Marc Vandewalle, N.V. Bekaert, S.A., Zwevegem, Belgium, 2005, 400 pp.
- "Recommended Practice – Shotcreting in Australia," Concrete Institute of Australia/Australian Shotcrete Society, May 2008, 67 pp.
- "Shotcrete: Engineering Developments," *Proceedings*, International Conference on Engineering Developments in Shotcrete, Hobart, Tasmania, Australia, April 2-4, 2001, E. Stefan Bernard, Editor, 268 pp.
- "Shotcrete: More Engineering Developments," *Proceedings*, Second International Conference on Engineering Developments in Shotcrete, Cairns, Queensland, Australia, Oct. 4, 2004, E. Stefan Bernard, Editor, 291 pp.



# Shotcrete is Concrete

**So Why Choose Shotcrete?**

**Speed**

**Versatility**

**Cost Savings**

**Sustainability**

The shotcrete process offers many advantages over other methods of placing concrete—from construction speed and labor and formwork savings, to the ability to construct complex shapes without extensive structural formwork and complex application by hand.

With shrinking project margins and growing quality demands, shotcrete is an attractive and structurally-equivalent option for new construction and rehabilitation. Find out why a growing number of specifiers, designers, and contractors choose shotcrete.

**AMERICAN**   
**SHOTCRETE**  
**ASSOCIATION**

**Visit [www.Shotcrete.org](http://www.Shotcrete.org)**

Education and Certification  
Technical Questions and Answers  
Demonstrations  
Buyers Guide