

Durability Enhancements in Concrete with Fiber Reinforcement

**Papers Presented at the ACI Spring 2008 and Spring 2009 Conventions
ACI SP 276**

Los Angeles, California, USA

30 March – 3 April 2008

San Antonio, Texas, USA

15 – 19 March 2009

Editors:

Corina-Maria Aldea

Nur Yazdani

ISBN: 978-1-61839-204-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2011) by the American Concrete Institute
All rights reserved.

Printed by Curran Associates, Inc. (2011)

For permission requests, please contact the American Concrete Institute
at the address below.

American Concrete Institute
38800 Country Club Drive
Farmington Hills, MI 48333 USA

Phone: (248) 848-3700

Fax: (248) 848-3701

BKStore@concrete.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

SP-276—1 Cracking Histories of Synthetic Fiber Reinforced Concrete Applications	1
Author: Clifford N. MacDonald	
SP-276—2 Improving the Plastic Shrinkage Cracking Resistance of Self-Consolidating Concrete with Fiber Addition.....	11
Authors: Dean Forgeron and Jean-Francois Trottier	
SP-276—3 Durability Enhancements of Cracked Concrete by Fibers	25
Authors: Corina-Maria Aldea and Surendra P. Shah	
SP-276—4 Fiber Reinforced Concrete of Enhanced Fire Resistance for Tunnel Segments	39
Authors: L.A.P. Lourenço, J.A.O. Barros, and J.G.A. Alves	
SP-276—5 FRC Performance Comparison: Uniaxial Direct Tensile Test, Third-Point Bending Test, and Round Panel Test	73
Authors: Shih-Ho Chao, Jae-Sung Cho, Netra B. Karki, Dipti R. Sahoo, and Nur Yazdani	
SP-276—6 Use of Steel Fiber Reinforced Concrete in Anchorage Zone of Post-Tensioned Concrete Girders	93
Authors: Kamal S. Tawfiq, Brenda Robinson, and Nur Yazdani	