

# **Reduction of Crack Width with Fiber**

Held at the ACI Fall 2016 Convention

ACI SP 319

Philadelphia, Pennsylvania, USA  
23 – 24 October 2016

## **Editors:**

**Corina-Maria Aldea  
Mahmut Ekenel**

ISBN: 978-1-5108-4272-4

**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© (2017) by American Concrete Institute  
All rights reserved.

Printed by Curran Associates, Inc. (2017)

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

American Concrete Institute  
38800 Country Club Drive  
Farmington Hills, MI 48331 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: 845-758-2633  
Email: curran@proceedings.com  
Web: www.proceedings.com

## TABLE OF CONTENTS

### **SP-319—1**

Reduction of Crack Widths in Steel Reinforced Concrete Bridge Decks with Fiber

Authors: Anil Patnaik, Prince Baah, Perry Ricciardi, and Waseem Khalifa

### **SP-319—2**

A Model to Predict the Crack Width of FRC Members Reinforced with Longitudinal Bars

Authors: Joaquim Barros, Mahsa Taheri, and Hamidreza Salehian

### **SP-319—3**

Effectiveness of Macro Synthetic Fibers to Control Cracking in Composite Metal Decks

Authors: Salah Altoubat and Klaus-Alexander Rieder

### **SP-319—4**

Conventional and Unconventional Approaches for the Evaluation of Crack Width in FRC Structures

Authors: Alessandro P. Fantilli and Bernardino Chiaia

### **SP-319—5**

Tailoring a New Restrained Shrinkage Test for Fiber Reinforced Concrete

Authors: Adriano Reggia, Fausto Minelli, and Giovanni Plizzari

### **SP-319—6**

Reduction of Water Inflow by Controlling Cracks in FRC Tunnel Segments

Authors: Mehdi Bakhshi and Verya Nasri

### **SP-319—7**

Engineering Cementitious Composites for Improved Crack-Width Control of FRC Beams – A Review

Authors: Moussa Leblouba, Salah Al-Toubat, and Mohamed Maalej

### **SP-319—8**

From Theory to Practice – 15 Years of Applying SFRC for Crack Control in Design

Author: Andreas Haus

### **SP-319—9**

Probabilistic Explicit Cracking Model for SFRC Structures

Author: Pierre Rossi

### **SP-319—10**

Toughening of Cement Composites with Wollastonite Micro-Fibers

Authors: Vikram Dey, Amir Bonakdar, Mehdi Bakhshi, and Barzin Mobasher

### **SP-319—11**

Repeatability of Self-Healing in Fiber Reinforced Concretes with and without Crystalline Admixtures: Preliminary Results

Authors: Estefanía Cuenca and Liberato Ferrara