



Eggshell, a novel bio-filler for intumescent fire protective coating

By Chian Yew, Ming / Kun Yew, Ming

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | This study focuses on the characterization of eggshell, a new bio-filler for water-based intumescent fire protective coating. The coating is a water-based intumescent coating system into which fire retardant agents, ammonium polyphosphate (APP) phase II, melamine (MEL) and pentaerythritol (PER), recycled chicken eggshell (CES) as a bio-filler and silica fume (SF) as a binder have been incorporated. The influence of filler and binder on the properties and fire-resistive performance of the coatings applied on the steel plates were investigated by using thermogravimetric analysis (TGA), scanning electron microscope (SEM), small scale Bunsen burner test and furnace test. Thermal stability of chicken eggshell (CES) as bio-filler was compared with that of commercial calcium carbonate filler by TGA. The results indicated a higher thermal stability for the CES. TGA results showed that by adding CES as well as silica fume (SF) as a binder has increased the residue weight and anti-oxidation of the coatings. The combination of CES and SF with flame retardant additives led to the best fire resistance performance, the highest thermal stability and the densest surface structure. | Format: Paperback | Language/Sprache: english | 64 pp.



READ ONLINE
[1.98 MB]

Reviews

An exceptional pdf and the typeface utilized was fascinating to read through. It can be written in straightforward words and phrases instead of confusing. I am just quickly could possibly get a delight of looking at a written ebook.

-- Prof. Arlie Bogan

It is a single of the best book. This is for those who state there had not been a well worth reading through. Once you begin to read the book, it is extremely difficult to leave it before concluding.

-- Dr. Barney Robel Jr.

See Also



Hands-On Worship Fall Kit (Hardback)

Group Publishing (CO), United States, 2015. Hardback. Book Condition: New. 305 x 229 mm. Language: English . Brand New Book. Hands-On Worship(TM) It s more than LEARNING about God. it s about ENCOUNTERING God! Hands-On Worship is a multi-age children s church...



TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (2-4 years old) in small classes (3)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the Youth Pre-employment Training software download generated pictures...



A Smarter Way to Learn JavaScript: The New Approach That Uses Technology to Cut Your Effort in Half

Createspace, United States, 2014. Paperback. Book Condition: New. 251 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.The ultimate learn-by-doing approachWritten for beginners, useful for experienced developers who want to sharpen their skills and don t mind...



Chicken Licken - Read it Yourself with Ladybird: Level 2

Penguin Books Ltd, United Kingdom, 2013. Paperback. Book Condition: New. 226 x 152 mm. Language: English . Brand New Book. In this classic fairy tale, a nut falls on Chicken Licken s head and he decides he must tell the king that...



My Life as a Third Grade Zombie: Plus Free Online Access (Hardback)

Gallopade International, United States, 2013. Hardback. Book Condition: New. 224 x 142 mm. Language: English . Brand New Book. When you purchase the Library Bound mystery you will receive FREE online eBook access! Carole Marsh Mystery Online eBooks are an easy, effective,...



The Well-Trained Mind: A Guide to Classical Education at Home (Hardback)

WW Norton Co, United States, 2016. Hardback. Book Condition: New. 4th Revised edition. 244 x 165 mm. Language: English . Brand New Book. The Well-Trained Mind will instruct you, step by step, on how to give your child an academically rigorous, comprehensive...