### **Accepted Manuscript**

Furan-functionalized aniline trimer based self-healing polymers exhibiting high efficiency of anticorrosion

Tsai-Wei Chuo, Ying-Ling Liu

PII: S0032-3861(17)30780-2

DOI: 10.1016/j.polymer.2017.08.015

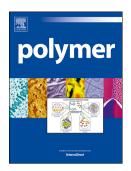
Reference: JPOL 19917

To appear in: Polymer

Received Date: 21 May 2017
Revised Date: 26 July 2017
Accepted Date: 7 August 2017

Please cite this article as: Chuo T-W, Liu Y-L, Furan-functionalized aniline trimer based self-healing polymers exhibiting high efficiency of anticorrosion, *Polymer* (2017), doi: 10.1016/j.polymer.2017.08.015.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



#### ACCEPTED MANUSCRIPT

# Furan-functionalized aniline trimer based self-healing polymers exhibiting high efficiency of anticorrosion

Tsai-Wei Chuo, Ying-Ling Liu\*

Department of Chemical Engineering, National Tsing Hua University, #101, Sec. 2, Kuang-Fu Road, Hsinchu 30013, Taiwan

\* Corresponding author: Professor Ying-Ling Liu, E-mail: <a href="mailto:liuyl@mx.nthu.edu.tw">liuyl@mx.nthu.edu.tw</a>; Tel: +886-3-5711450; Fax: +886-3-5715408.

#### **Highlights**

- 1. Tetrafunctional furan-capped aniline trimer (TFAT) is a new building block for self-healing polymers.
- 2. TFAT shows high anticorrosion efficiency based on its electroactivity and good adhesion strength.
- 3. Maleimide-based chemicals and TFAT could result in self-healing anticorrosion coatings.
- 4. An almost complete recovery of anticorrosion protection efficiency is reached.

#### Download English Version:

## https://daneshyari.com/en/article/5177862

Download Persian Version:

https://daneshyari.com/article/5177862

<u>Daneshyari.com</u>