

NACURE® PC-100

Low Temperature Cure Catalyst for Powder Coatings

NACURE® PC-100 is a novel catalyst developed to eliminate the short comings of conventional powder coatings catalysts including 2-M Imidazole and C17 Imidazoles and to provide low temperature cure.

Increase efficiency

- Reduce oven temperature
- Shorten cure time

Improve performance

- Increase chemical resistance
- Increase impact resistance
- Reduce yellowing

Simplify handling

- Low health hazard
- Solid powder form

Reduce Peak Metal Temp.

200°C+ → 140°C



NACURE PC-100 Performance vs. 2-MI (White Polyester/BPA Hybrid System)

The NACURE Advantage

Low bake cure conditions with **PC-100**

🕒 15 min. @ 150-170°C

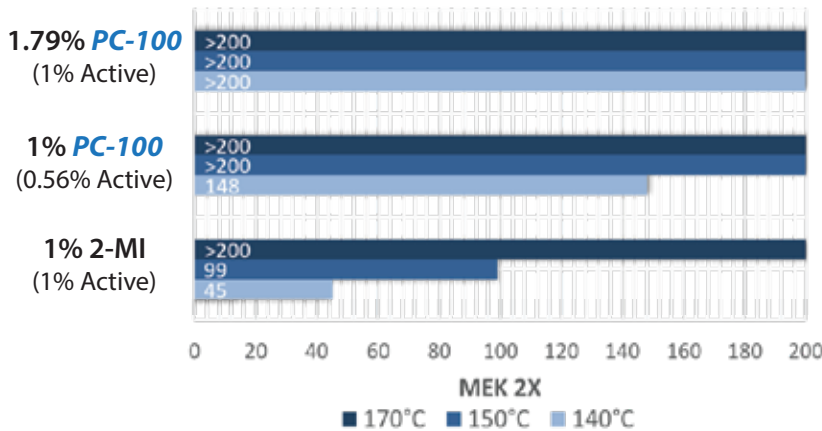
🌡️ PMT (140-170°C)

vs. Standard cure conditions

🕒 30 min. @ 190-220°C

🌡️ PMT (180-200°C)

Lower Temperature Cure (MEK 2X Rubs)



Improved Impact Resistance (Direct Impact)

Fail @ 20 in-lb

Pass @ 40 in-lb



1% 2-MI
(1% Active)



1.79% PC-100
(1% Active)

140°C Cure

Overbake Resistance 20 minutes @ 200°C



b*: 5.71

b*: 1.51

0.68% 2-MI
(0.68% Active)

1.2% PC-100
(0.68% Active)

Improved Adhesion & Crack Resistance (Mandrel Bend)



1% 2-MI
(1% Active)
Fail

140°C Cure



1.79% PC-100
(1% Active)
Pass

NACURE PC-100 Performance vs. C17-Imidazole (White TGIC System)

The **NACURE Advantage**

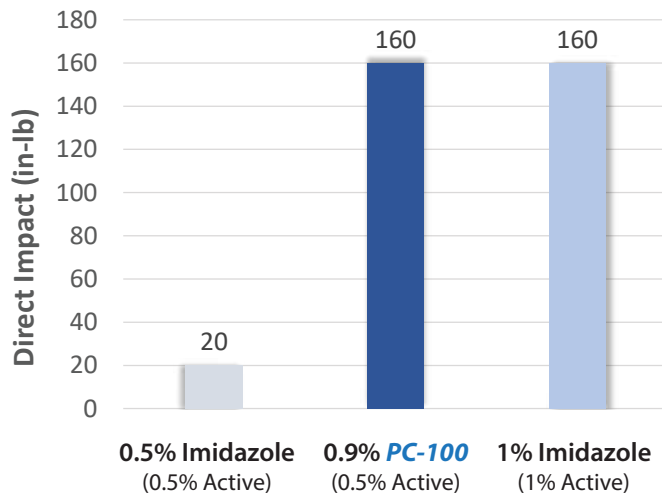
Low bake cure conditions with **PC-100**

🕒 25 min. @ 125°C

vs. Standard cure conditions

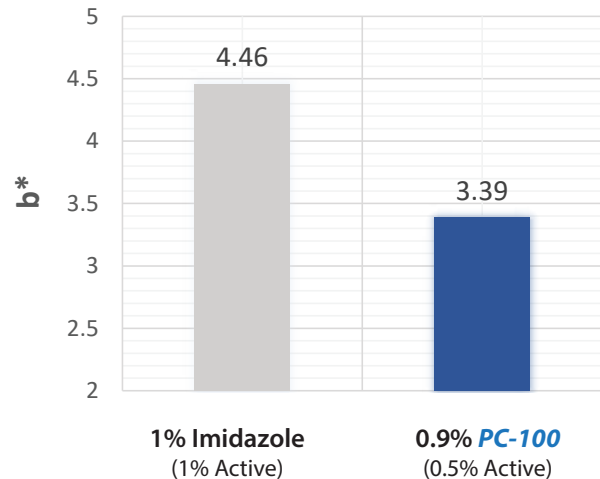
🕒 30 min. @ 180°C

Improved Impact Resistance (Direct Impact)



125°C/25 min

Less Yellowing (b* Value)



125°C/25 min

Typical Properties

	NACURE PC-100
Appearance	White solid powder
% Active	56
Dosage	0.25 - 1.5% (active on total resin solids)
Incorporation	Add before or after end of extrusion process



Contact Information

www.kingindustries.com

**Global Headquarters
Tech. Service, R&D, & Sales**
King Industries, Inc.
1 Science Rd.
Norwalk, CT 06852, USA
Phone: 1-203-866-5551

European Tech. Sales Office
King Industries, International
Science Park 402
1098 XH Amsterdam
The Netherlands
Phone: 31 20 723 1970

Asia-Pacific Tech. Sales Office
Synlico Tech Co., Ltd.
42 Ju Lin Ya Yuan
Richmond Hill (Juhaoyuan)
Zhongshan, China
Phone: 86 760 88229866



NACURE_PC-100_KES_3/22