# オキサゾリン系反応ポリマー エポクロス®

Oxazoline functionalized reactive copolymers EPOCROS

## 特徴 / Features

●カルボキシル基と高反応

High reactivity with the carboxyl groups.

●一液安定性良好 Long Pot -life in waterborne system

●接着性良好

Adhesion promoting

●副生物無し

No by-products

●低毒性

Low - toxicity

(Ames:Negative,Skin irritation:None)

# 用途 / Applications

コーティング剤

·粘、接着剤

塗料

・プライマー

· 顔料捺染

Coating

Adhesives

**Paints** 

Primer

Pigment Printing

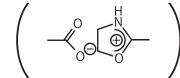
#### カルボキシル基との反応 / Reaction with The Carboxyl Groups

1.カルボキシル基との反応が最も有効

Reaction with carboxyl groups which is contained in most of waterbone polymers is regarded to have the highest reactivity.

- 2.カルボキシル基とは反応後安定なアミドエステル結合を生成し、副生物が発生しない After the reaction with the carboxyl groups, stabale amide ester bonding is formed. Any by-product will not be generated.
- 3.カルボキシル基との反応は $80^{\circ}$ C $\sim 100^{\circ}$ C以上で急速に進行する Reaction with carboxyl groups proceeds rapidly at elevated temperature 80°C to 100°C.
- 4. 芳香族性のチオール基やフェノール基とも反応するが、アルコール性水酸基とは反応しない Oxazoline groups also react with aromatics such as thiol groups as well as phenol groups, but oxazoline groups can not react with alcoholic hydroxyl groups.

$$\int_{A}^{A} \int_{O \setminus NH_4^+}^{O} + \int_{O \setminus A}^{N} \int_{A}^{A} \int_{O}^{A} \int_{O \setminus NH_4^+}^{O} + \int_{O \setminus A}^{N} \int_{O}^{A} \int_{O$$



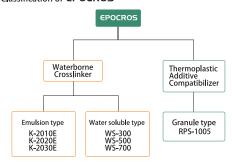


Neutralizer blocks carboxylic acid

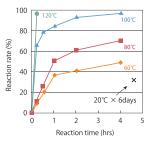
- → React after volatilization→ Big influence by pH and neutralizer

## エポクロス® 製品の種類 / EPOCROS Product Line-Up

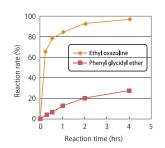
# Classification of **EPOCROS**



## オキサゾリン基のモデル反応 / Model Reaction of Oxazoline Groups



Model reaction of Oxazoline / Carboxyl groups (Ethyl Oxazoline / Propionic acid)



Comparison between the reactivity of Oxazoline groups and Epoxy groups (Reaction with Propionic acid, 100°C)

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株式会社日本触媒 NIPPONN SHOKUBAI CO.,LTD.

精密化学品営業部 Fine & Specialty Chemicals Sales & Marketing Dept. E-mail: yuki\_nakata@shokubai.co.jp URL:http://www.shokubai.co.jp