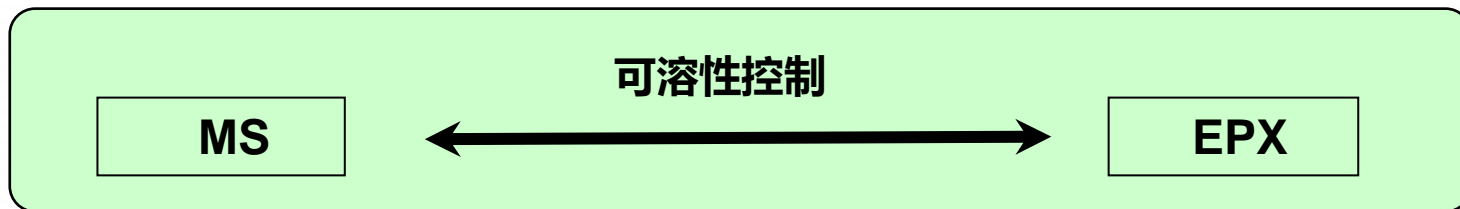


# MS高强度和瓷砖粘接剂介绍

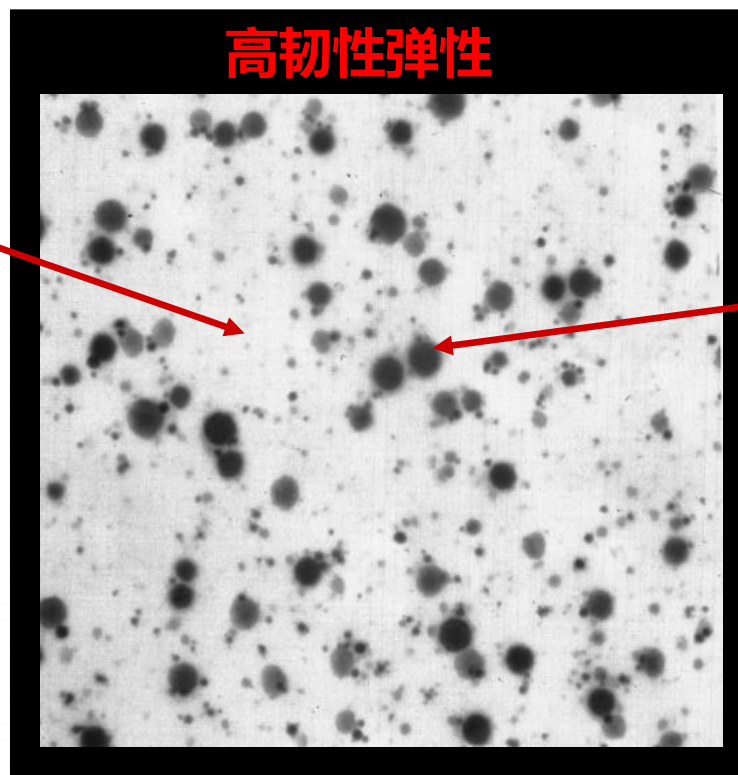
2012年8月22日

钟化贸易（上海）有限公司

# 使用环氧树脂双组份配方 (MS / EPX混合)



固化后MS部分(白)



固化后  
环氧树脂粒子(黑)  
(0.05 - 0.5 mm)

# 使用环氧树脂双组份配方

## Non-Filler Formulation

Confidential

### Formulation

Formulation No.	N-5	
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#### Part A

Component		phr
SILYL	SAX350	100
Hardener for Epoxy	Ankamine K-54 <sup>*1</sup>	5
Adhesion Promoter	DAMO <sup>*2</sup>	2

#### Part B

Component		phr
Epoxy resin	Epicoate 828	50
Hardening catalyst for SILYL	No. 918 <sup>*3</sup>	2
Water		0.5

Total	159.5	
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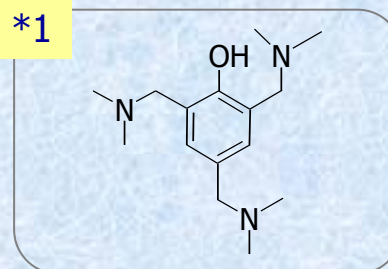
<sup>\*3</sup> Reactant of Bu<sub>2</sub>SnO and Dioctylphthalate

### Properties (N-5)

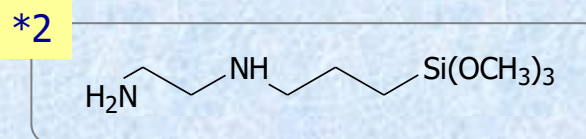
Curing Speed	S.F.T.	min	15
Tensile strength of dumbbell	M100	MPa	0.94
	Tb		9.2
	Eb	%	500
Lap shear strength <sup>*4</sup>		MPa	10.3
T-peel strength <sup>*4</sup>		N/25mm	120

<sup>\*4</sup> Substrate: Aluminium

<sup>\*1</sup>

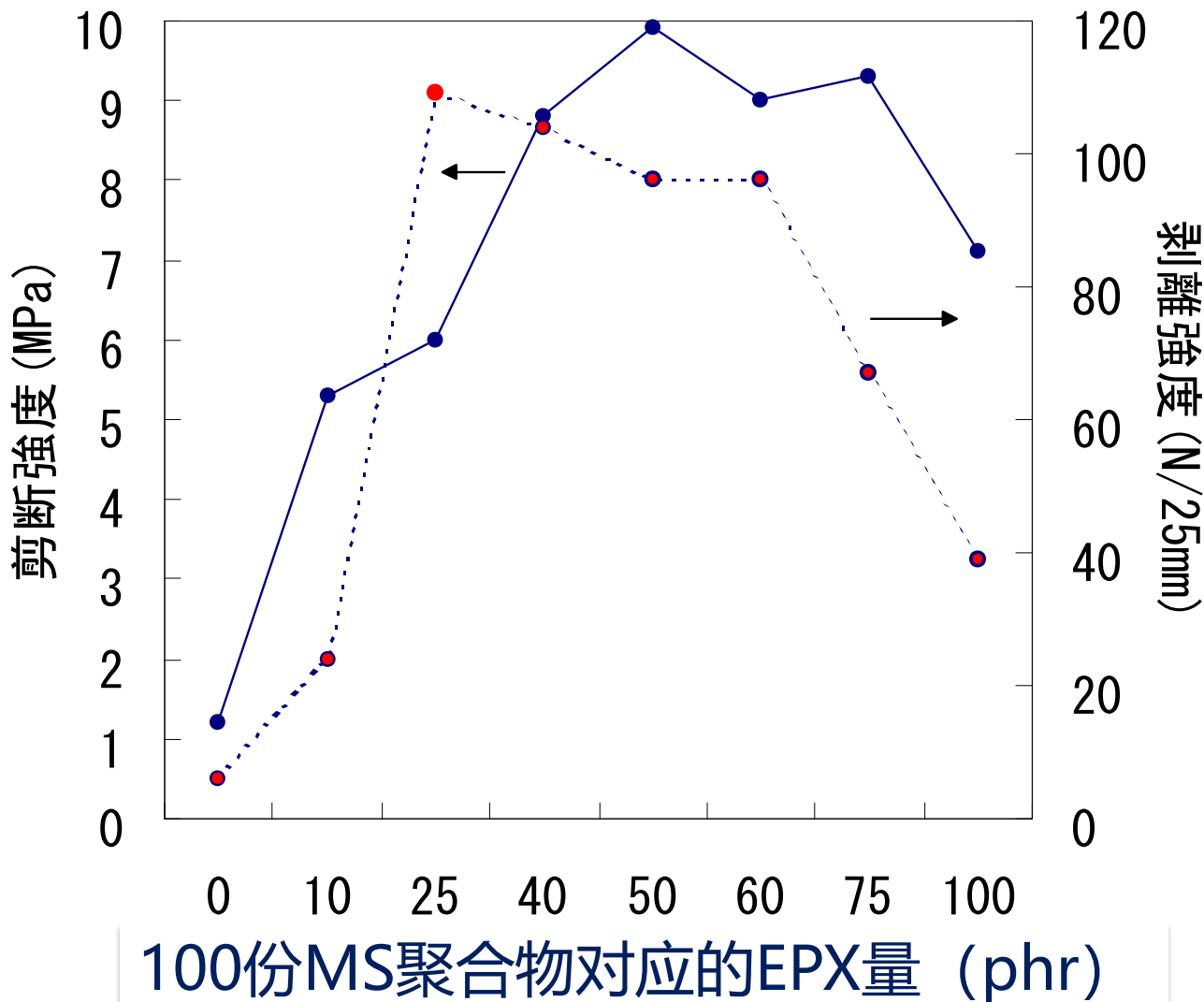


<sup>\*2</sup>



# 粘接性与SAT/EPX含量关系

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## 使用环氧树脂双组份配方

## Filler Formulation

Confidential

**Formulation**

		SE-10
Part A		SE-10A
	SAX350	100
	UltraPflex	50
	Crayvallac SL	2
	Irganox 245	1
	A-171	2
	A-1120	2
	Ancamine K-54	10
	SUL-11A* <sup>1</sup>	2
	169	
Part B		SE-10B
	Epon 828	30
	Eponex 1510	30
	Q3T	90
	Water	2
		152
Total		321

\*1:Reactant of Bu<sub>2</sub>SnO and DioctylphthalateUltraPflex: Treated surface CaCO<sub>3</sub>Q3T: Ground CaCO<sub>3</sub>**Properties (SE-10)**

Viscosity (HA)	1rpm	Pa s	720
	2rpm	Pa s	400
	10rpm	Pa s	130
	([2rpm]/[10rpm])		3.0
Part A	1rpm	Pa s	940
	2rpm	Pa s	580
	10rpm	Pa s	210
	([2rpm]/[10rpm])		2.7
Skin formation time		min	60
Hardness	Shore A		82
Dumbbell property (ASTM D412)	M100	MPa	-
	TB	MPa	5.01
	EB	%	87
Shear strength *	Galvanized steel	MPa	6.9
	Aluminum	MPa	6.2

\*: Lap area: 25mmx24mm, Thickness: 1mm,

Cure condition:23C\*3days + 50C\*4days

Tensile speed:50mm / min

## 使用环氧树脂MS配方应用事例

1. 花砖，石板粘合剂用途
2. 石料里面处理剂用途
3. 土木密封剂用途

以前双组胶多，不过，现在，使用环氧水分  
活性化硬化剂的单组胶多

<b>Cmponent</b>	<b>Grade</b>	<b>TA-31kai-A</b>
<b>MS Polymer</b>	<b>EST280</b>	<b>100</b>
<b>Epoxy resin</b>	<b>JER828</b>	<b>5</b>
<b>Plasticizer</b>	<b>DIDP</b>	<b>15</b>
<b>Calcium carbonate</b>	<b>Hakuenka CCR</b>	<b>80</b>
	<b>M300</b>	<b>120</b>
<b>Fine sand</b>	<b>Number 8</b>	<b>100</b>
<b>Balloon filler</b>	<b>SL150</b>	<b>10</b>
<b>Calcium oxide</b>	<b>CML#35</b>	<b>50</b>
<b>Anti oxidant</b>	<b>Irganox1010</b>	<b>1</b>
<b>Dehydration agent</b>	<b>A-171</b>	<b>2</b>
<b>Adhesion promoter</b>	<b>A187</b>	<b>3</b>
<b>Hardening catalyst</b>	<b>U-130</b>	<b>1</b>
<b>Epoxy hardner</b>	<b>H-30</b>	<b>2</b>
<b>Total</b>		<b>489</b>

	<b>MS Polymer</b>	<b>20.4%</b>
<b>Skin Fomation Time * 1</b>	<b>(min)</b>	<b>60</b>
<b>Viscosity (Pa·s) * 2</b>	<b>1rpm</b>	<b>3,960</b>
	<b>10rpm</b>	<b>763</b>
<b>Viscosity ratio</b>	<b>[1rpm]/[10rpm]</b>	<b>5.19</b>
<b>Tensile Properties * 3</b> <b>of Dumbbel</b> <b>(23°C×3days+ 50°C×4days)</b>	<b>M50 (MPa)</b>	<b>1.72</b>
	<b>M100 (MPa)</b>	<b>—</b>
	<b>TB (MPa)</b>	<b>1.74</b>
	<b>EB (%)</b>	<b>47</b>
<b>Tile adhesion * 4</b> <b>DRY / WET</b>	<b>N / mm2</b>	<b>1.64 / 0.99</b>
	<b>failure mode</b>	<b>CF100 / CF70GA30</b>

**\*1** : Determined by touch method. **\*2** : Determined by BS-Type Viscometer, rotor No.7

**\*3** : Curing condition:23°C 50%RH×3 days+50°C ×4 days

Dumbbell form:JIS K6301 No.3type Test speed:200 mm/min.

**\*4** : Test speed 3(mm/min) CF = Cohesion failure(%), GA = Adhesion failure(%)

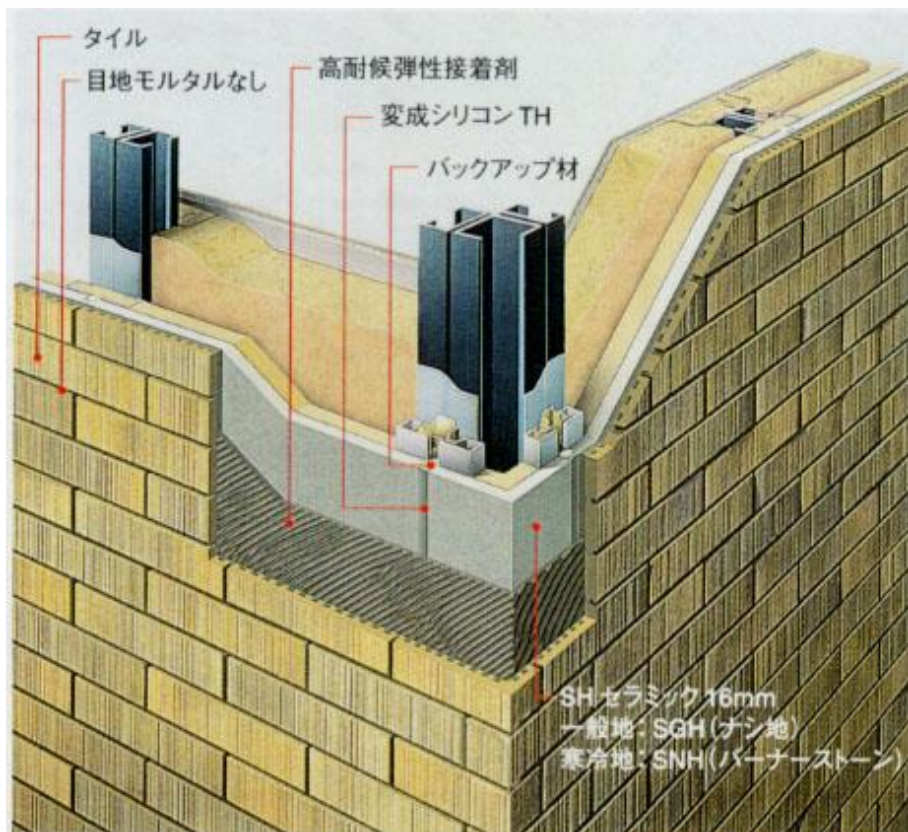
Curing condition : DRY:23°C 50%RH×3 days+50°C ×4 days

WET:23°C 50%RH×3 days+50°C ×4 days+immersed in water at 50°C×7 days.



# 使用环氧树脂MS配方应用事例

## 瓷砖粘贴

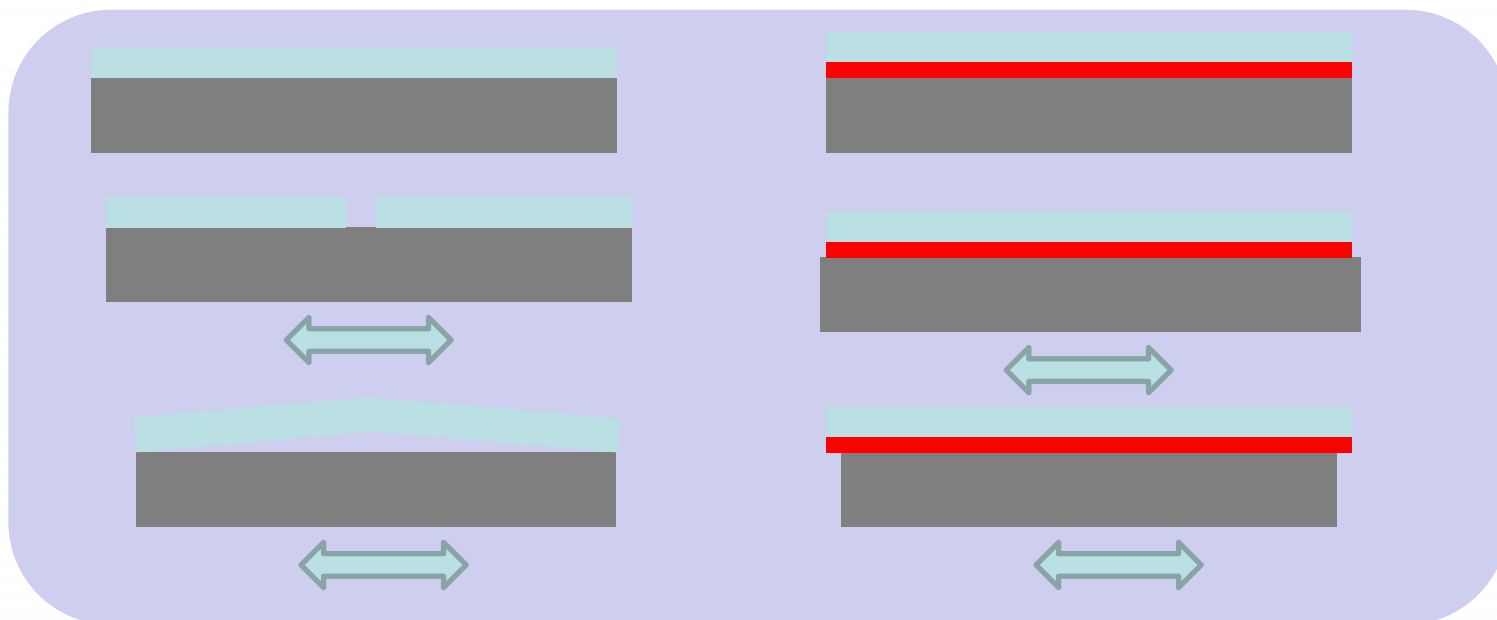


## 使用环氧树脂MS配方应用事例

### 石材、混凝土界面的处理材料

#### < 作用 >

- 避免混凝土、石材白华现象而采用的防水技术
- 对石材和混凝土两种不同材料物理性能的控制  
(主要使用弹性密封材料)



# 使用环氧树脂MS配方应用事例

## 铺装道路接缝·地下防水



# 使用环氧树脂MS配方应用事例

## 隧道瓷砖·面板接缝 (MS/EPX)

