

# WATERBORNE SOUND-DEADENING COATING

## 水性阻尼涂料

### PRODUCT DESCRIPTION 产品简介

- Environment-friendly water-borne damping coatings composed of hollow nanospheres and core shell polymer emulsions.  
应用纳米复杂多相体系控制技术,采用多腔阻燃刚性填料与核壳聚合物乳液制备的环保通用型水性阻尼涂料。  
该产品具备优异的阻燃、降噪、减振、水性、环保、易施工等特点。

### RECOMMENDED USE 用途

- Use of damping materials on the surface of metal or organic composite materials for rail transit vehicles, aircraft, passenger vehicles, ships etc.  
用于轨道交通车辆、航空器、乘用车、轮船等交通工具金属或有机复合材料表面的阻尼减振材料使用

### FEATURES 产品特性

- Excellent damping performance: it can effectively reduce the noise caused by mechanical vibration of metal and composite materials;  
优异的阻尼性能:可有效降低金属及复合材料的机械振动引起的噪声,复合损耗因数优于动车组标准要求20-68%;
- Excellent flame retardant: TB / T 3138-2018 "extremely difficult to burn" level;  
优异的阻燃性能:达到TB/T 3138-2018 “极难燃”级别;
- Environment friendly: Waterborne, 0 VOCs added and free of Pb, Hg, Cr& Cd;  
优异的环保性能:水性, 0 VOCs添加, 不含重金属;
- Good applicability: it can be used for spraying or scraping, fast drying, cracking resistance and sagging resistance up to 5mm.  
优异的施工性能:可喷涂或刮涂,快速干燥,抗开裂性和抗流挂性可达5mm。

### MICROMORPHOLOGY 轻量化下实现阻尼降噪机理



The hollow nano microsphere powder with special preparation has a vacuum cavity, which can reduce the coating density, at the same time, effectively reduce the sound transmission, sound insulation and noise reduction;

The polymer is core-shell structure, the shell is viscoelastic and the core is rigid, which can provide high-efficiency damping lag effect and play a role in damping.

采用特殊制备的多腔阻燃刚性填料,其具有真空空腔,可有效降低声波传递,隔音降噪;  
聚合物为核壳结构,壳体具有粘弹性,核体为刚性,可提供高效阻尼滞后效应,起到减振作用。

### PHYSICAL PROPERTIES 基本数据

<b>Color</b> 颜色	Light grey or various colors required by customers 浅白色或客户要求的各种颜色																																						
<b>Volume Solids</b> 体积固体份	Greater than 90% 90%以上																																						
<b>Film thickness</b> 涂装膜厚	Dry : 2.0 mm/coat 干膜:2.0毫米/道																																						
<b>Composite loss factor</b> 复合损耗因数	<table border="1"> <thead> <tr> <th>温度Temperature</th><th>50°C</th><th>40°C</th><th>30°C</th><th>20°C</th><th>10°C</th><th>0°C</th><th>-10°C</th></tr> </thead> <tbody> <tr> <td>实测结果Test result</td><td>0.0420</td><td>0.0626</td><td>0.1144</td><td>0.1848</td><td>0.1808</td><td>0.1102</td><td>0.0428</td></tr> <tr> <td>动车组指标EMU</td><td>≥0.035</td><td>-</td><td>-</td><td>≥0.110</td><td>-</td><td>-</td><td>≥0.035</td></tr> <tr> <td>铁路客车指标Train</td><td>≥0.030</td><td>-</td><td>-</td><td>≥0.090</td><td>-</td><td>-</td><td>≥0.030</td></tr> </tbody> </table> <p>The data of test results are from the National Quality Supervision and Inspection Center of Rail Transit Polymer Materials and Products 产品实测结果数据来源于国家轨道交通高分子材料及制品质量监督检验中心</p>							温度Temperature	50°C	40°C	30°C	20°C	10°C	0°C	-10°C	实测结果Test result	0.0420	0.0626	0.1144	0.1848	0.1808	0.1102	0.0428	动车组指标EMU	≥0.035	-	-	≥0.110	-	-	≥0.035	铁路客车指标Train	≥0.030	-	-	≥0.090	-	-	≥0.030
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## SURFACE PREPARATION 表面处理

- Remove salt and other water-soluble contaminants by fresh water;  
用清水冲去盐份及其它水溶性污物;
- Remove oil and grease with suitable detergent or solvent(SSPC-SP 1);  
依照SSPC-SP1溶剂清洗标准除去油脂;
- Remove rust, mill-scale and other loose material completely by abrasive blasting;  
用喷砂方式除去铁锈、氧化皮等达到ISO Sa2½(SSPC-SP 10)或更好;
- All surface to be coated should completely clean,dry and free from contamination.  
涂漆前确认表面清洁干燥无灰尘。

## APPLICATION 施工

Application Temperature 施工温度	5°C-40°C														
Thinner 稀释剂	≤5% Deionized water 5%以内去离子水														
Mixing 混合	Mix thoroughly with power agitator 使用动力工具搅拌均匀														
Application Methods 施工方法	Air spray conveyance: with a piston pump, ratio 12:1 采用12/1的活塞泵输送的空气辅助喷涂 <table><tr><td>Nozzle tip</td><td>喷嘴尺寸</td><td>6.0 mm</td></tr><tr><td>Material pressure</td><td>输送压力</td><td>2-4 bar</td></tr><tr><td>Atomizing air pressure</td><td>喷涂压力</td><td>4-6 bar</td></tr><tr><td>Thinning ratio</td><td>稀释比率</td><td>0-5% by weight (重量比)</td></tr></table>			Nozzle tip	喷嘴尺寸	6.0 mm	Material pressure	输送压力	2-4 bar	Atomizing air pressure	喷涂压力	4-6 bar	Thinning ratio	稀释比率	0-5% by weight (重量比)
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Typical undercoat 适用下涂	Epoxy primer 环氧底漆														

## STORAGE 贮存

- Store in dry, cool condition and keep temperature above 5°C. Containers must be kept tightly closed;  
贮存于干燥阴凉的环境中, 贮存温度大于5°C。包装桶必须保持封闭;

## SHELF LIFE 贮存期限

- 9 months from date of production (25°C).  
自生产之日起9个月 (25°C)。

## SAFETY PRECAUTIONS 安全措施

- Detail information is given on MSDS.  
详细信息参见化学品安全说明书。
- Avoid inhalation of spray mist or vapour.  
避免吸入漆雾或蒸气。
- Avoid skin and eye contact.  
避免接触皮肤和眼睛。
- Paint contacted with skin should be immediately removed with water and/or suitable cleanser. Eyes should be flushed with water and seek immediate medical attention.  
如果油漆接触到皮肤, 应用温水以及 (或者) 适当的清洗剂清洗。如果油漆接触到眼睛, 应用大量水冲洗并立即就医。  
Application and handling of this product should be in compliance with relevant national regulations.
- 使用本产品应遵守相关国家安全规定。

ISSUED DATE 发行日期 2020/06/06 V1

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