

环保型的腐蚀防护新技术

Eco-friendly corrosion protection




Dynasytan®

 **EVONIK**
POWER TO CREATE



腐蚀破坏会导致经济损失,因此,对于金属类型的易腐蚀部件必须进行腐蚀防护。防护涂料可以对易腐蚀部件进行有效保护,并能延长诸如钢结构的使用寿命。这些建筑物使用寿命延长有助于提升资源效率。实际上,当前的许多涂层都含有有机溶剂,使用时直接会释放到大气中。有没有想过对这座大桥进行涂装,将会释放出多少有机溶剂 (VOC) 到环境中?

在众多的应用中,钢结构和环境都能得到很好的保护。



高压线塔架表面涂敷了由Dynasylan® SIVO 140 配制的水性锌粉涂料!

喷涂基于 Dynasylan® SIVO 140 配制的水性锌粉涂料的典型基材：油气管道。



基材表面先进行喷砂去除铁锈、油污和污垢，然后喷涂防腐涂层。

基于 Dynasylan® SIVO 140 配制的水性锌粉涂料的应用不仅仅局限于建筑物结构，还可以广泛用于多种不同的方向，如排气管也可以涂敷由 Dynasylan® SIVO 140 配制的水性锌粉涂料，相对于有机涂层，Dynasylan® SIVO 140 的锌粉涂层具有更好的耐热性。通常，这些排气管还会再涂敷一层面漆。



碳钢排气管也可以涂敷由 Dynasylan® SIVO 140 配制的水性锌粉涂料对其进行腐蚀防护。

下表列出的是基于 Dynasylan® SIVO 140 的水性防腐涂料的起始参考配方。

Table 1 Shop primer formulation based on Dynasylan® SIVO 140

| Formulation | | |
|---|------------------------|-------------------------------------|
| Component I | Parts by weight | Supplier |
| Dynasylan® SIVO 140 (binder) | 23.0 | Evonik Resource Efficiency, Germany |
| Add under stirring | | |
| AEROSIL® 200 | 0.6 | Evonik Resource Efficiency, Germany |
| <hr style="border-top: 1px dotted black;"/> | | |
| Component II | Parts by weight | Supplier |
| Zinc dust (4P/16) | 30.0 | Umicore Zinc Chemicals, Belgium |
| Zinc oxide (Red Seal) | 12.0 | Umicore Zinc Chemicals, Belgium |
| MIOX micro 30 | 34.4 | Kärntner Montanindustrie |
| Total | 100.0 | |

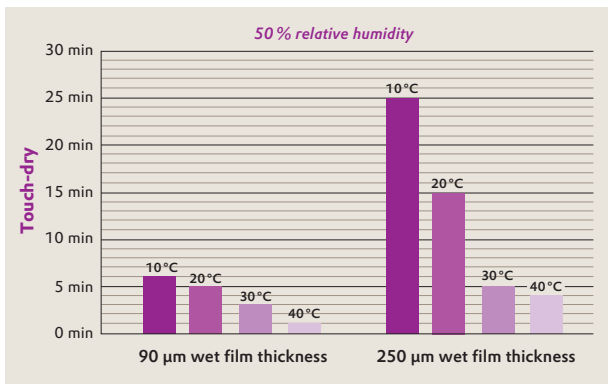
高锌粉含量底漆参考配方

Table 2 High zinc content corrosion protection coating based on Dynasylan® SIVO 140

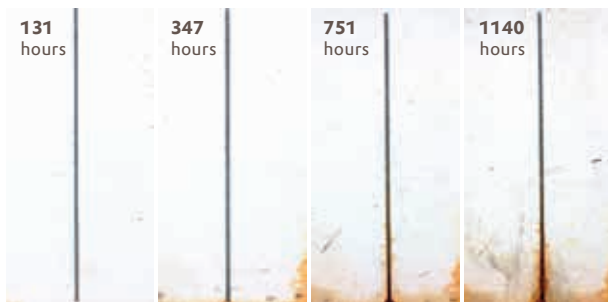
| Formulation | | |
|---|------------------------|-------------------------------------|
| Component I | Parts by weight | Supplier |
| Dynasylan® SIVO 140 (binder) | 15.0 | Evonik Resource Efficiency, Germany |
| Deionised water | 4.0 | |
| Add under stirring | | |
| AEROSIL® 200 | 0.6 | Evonik Resource Efficiency, Germany |
| <hr style="border-top: 1px dotted black;"/> | | |
| Component II (fillers) | Parts by weight | Supplier |
| Zinc dust (4P/16) | 64.0 | Umicore Zinc Chemicals, Belgium |
| Zinc oxide (Red Seal) | 8.5 | Umicore Zinc Chemicals, Belgium |
| Mica MKT | 7.9 | Imerys Ceramics, France |
| Total | 100.0 | |

你是否认为由Dynasytan® SIVO 140 配制的水性锌粉涂料的干燥时间会有问题？

实际上使用Dynasytan® SIVO 140 配制的涂料的干燥时间完全没有问题！（可参考下图数据）

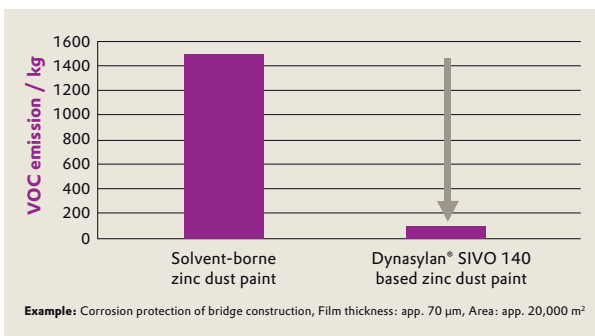


水性体系并不意味着腐蚀防护性能会下降。



上图是中性盐雾试验数据，样板底材：经喷砂处理的钢板（表面粗糙度约0.12~0.25毫米）。涂料体系是：底漆是用Dynasytan® SIVO 140 配制的水性高锌粉含量底漆，干膜厚度~70微米；面漆是水性环氧涂料 干膜（70~80微米）。

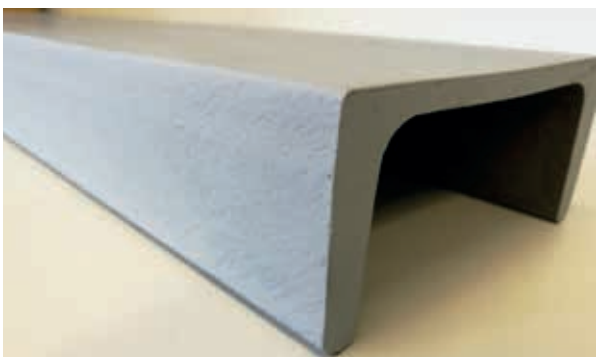
水性锌粉底漆和溶剂型锌粉底漆的VOC排放对比



使用Dynasylan® SIVO 140配制的水性锌粉涂料可以将VOC的排放量减少90%以上,既能保护桥梁,也能保护环境。

THERE ARE VERSATILE APPLICATIONS.

这种环保型的锌粉涂料在配方生产和应用施工过程中并不需要特殊设备。



此钢结构件表面涂敷了由Dynasylan® SIVO 140配制的水性锌粉涂料。该涂层由HVLP喷枪完成喷涂。

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