

紡織實驗室

Test Report 報告號碼: TX12511 /2021 /PL 日期: 2021 年 02 月 05 日 頁數: 五 之 一 頁

松勝創新股份有限公司
桃園市中壢區南園二路七號

我們依照客戶的要求, 根據申請者送交的樣品進行測試如下:

樣品敘述 : 一塊聚丙烯紡黏布

顏色 : 威尼斯紅色

成份 : 聚丙烯

申請者 : 松勝創新股份有限公司

收件日期 : 2021 年 01 月 29 日

測試週期 : 2021 年 01 月 29 日至 2021 年 02 月 05 日

測試項目&測試方法 : 依申請者要求進行下列測試

測試結果 : 請參照下一頁結果

Signed for and on behalf of
SGS Taiwan Ltd.

Ronnie Chang

Chang Chia Hao, Ronnie
Asst. Manager



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測試結果:

1. 游離甲醛

測試方法: 參考國際標準組織方法 ISO 14184-1:2011 使用紫外光/可見光分光光譜儀分析.

| 化合物 | 結果 (毫克/公斤) |
|-----|---------------|
| | 1 |
| 甲醛 | 未偵測出 |

樣品敘述:

1. 威尼斯紅色聚丙烯紡黏布

備註: 報告極限值 = 16 毫克/公斤

2. 鉛

測試方法: 依中華民國國家標準 CNS 4797-2 Z 7066-2, 使用感應耦合電漿-光學放射光譜儀

| | 結果 (毫克/公斤) | CNS 15290 上限值 (毫克/公斤) |
|--------|---------------|--------------------------|
| | 1 | |
| 鉛 (Pb) | 未偵測出 | 90 |

樣品敘述:

1. 威尼斯紅色聚丙烯紡黏布

備註: 報告極限值: 1 毫克/公斤

3. 鎘

測試方法: 依中華民國國家標準 CNS 4797-2 Z 7066-2, 使用感應耦合電漿-光學放射光譜儀

| | 結果 (毫克/公斤) | CNS 15290 上限值 (毫克/公斤) |
|--------|---------------|--------------------------|
| | 1 | |
| 鎘 (Cd) | 未偵測出 | 不得使用 |

樣品敘述:

1. 威尼斯紅色聚丙烯紡黏布

備註: 報告極限值: 1 毫克/公斤

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測試結果:

4. 有機錫

測試方法: 依中華民國國家標準 CNS 15290 L1036 5.4 節/CNS 15853-1 S2180-1, 使用氣相層析質譜儀(GC/MS)分析

| | 測試結果 (毫克/公斤) | CNS 15290 上限值 (毫克/公斤) | | | |
|------------|-----------------|--------------------------|-------------|--------------|----------|
| | | 嬰幼兒 | 與皮膚 直接接觸 | 與皮膚 非直接接觸 | 室內 裝飾 |
| | 1 | | | | |
| 三丁基錫 (TBT) | 未偵測出 | 0.5 | 1.0 | 1.0 | 1.0 |
| 三苯基錫 (TPT) | 未偵測出 | 0.5 | 1.0 | 1.0 | 1.0 |

樣品敘述:

1. 威尼斯紅色聚丙烯紡黏布

備註: 報告極限值: 0.1 毫克/公斤

5. 壬基酚 (NP)

測試方法: 參考中華民國標準 CNS 15579 L3270. 使用液相層析/質譜儀分析.

| | 結果 (毫克/公斤) | CNS 15290 上限值 (毫克/公斤) |
|-----|---------------|--------------------------|
| | 1 | |
| 壬基酚 | 未偵測出 | 1000 |

樣品敘述:

1. 威尼斯紅色聚丙烯紡黏布

備註: 報告極限值: 10 毫克/公斤

6. 壬基酚聚氧乙烯醚 (NPEO)

測試方法: 依中華民國標準 CNS 15579 L3270. 使用液相層析/質譜儀分析.

| | 結果 (毫克/公斤) | CNS 15290 上限值 (毫克/公斤) |
|----------|---------------|--------------------------|
| | 1 | |
| 壬基酚聚氧乙烯醚 | 未偵測出 | 1000 |

樣品敘述:

1. 威尼斯紅色聚丙烯紡黏布

備註: 報告極限值: 1 毫克/公斤

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測試結果:

7. 偶氮

測試方法:

依據國際標準組織 ISO 14362-1:2017 - 使用氣相層析質譜儀/高效液相層析儀/二極體陣列分析

4-胺基偶氮苯的檢測 - 依據國際標準組織 ISO 14362-3: 2017; 使用氣相層析質譜儀分析

| 化學品 (胺類) | 化學摘要號碼 | 結果 (毫克/公斤) | 限制值 (毫克/公斤) |
|------------------------|----------|---------------|----------------|
| | | 1 | |
| | | 脫色萃取 | |
| 對-胺基聯苯 | 92-67-1 | 未偵測出 | 30 |
| 聯苯胺 | 92-87-5 | 未偵測出 | 30 |
| 對-氯-鄰-甲苯胺 | 95-69-2 | 未偵測出 | 30 |
| 2-萘胺 | 91-59-8 | 未偵測出 | 30 |
| 鄰-胺基偶氮甲苯 | 97-56-3 | 未偵測出 | 30 |
| 5-硝基-鄰-甲苯胺 | 99-55-8 | 未偵測出 | 30 |
| 4-氯苯胺 | 106-47-8 | 未偵測出 | 30 |
| 2,4-二氨基苯甲醚 | 615-05-4 | 未偵測出 | 30 |
| 4,4'-二胺基二苯甲烷 | 101-77-9 | 未偵測出 | 30 |
| 二氯聯苯胺 | 91-94-1 | 未偵測出 | 30 |
| 二甲氧基聯苯胺 | 119-90-4 | 未偵測出 | 30 |
| 鄰-二甲基聯苯胺 | 119-93-7 | 未偵測出 | 30 |
| 3,3'-二甲基 4,4'-二胺基-二苯甲烷 | 838-88-0 | 未偵測出 | 30 |
| 2-甲氧基-5-甲基苯胺 | 120-71-8 | 未偵測出 | 30 |
| 4,4'-亞甲雙(2-氯苯胺) | 101-14-4 | 未偵測出 | 30 |
| 4,4'-二胺基二苯醚 | 101-80-4 | 未偵測出 | 30 |
| 4,4'-硫二苯胺 | 139-65-1 | 未偵測出 | 30 |
| 鄰-甲苯胺 | 95-53-4 | 未偵測出 | 30 |
| 2,4-甲苯二胺 | 95-80-7 | 未偵測出 | 30 |
| 2,4,5-三甲苯胺 | 137-17-7 | 未偵測出 | 30 |
| 4-胺基偶氮苯 | 60-09-3 | 未偵測出 | 30 |
| 鄰-甲氧基苯胺 | 90-04-0 | 未偵測出 | 30 |
| 2,6-二甲基苯胺 | 87-62-7 | 未偵測出 | 30 |
| 2,4-二甲基苯胺 | 95-68-1 | 未偵測出 | 30 |
| 結論 | | 通過 | |

備註: 報告極限值: 5 毫克/公斤 (每一個化合物)

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當對-胺基聯苯(化學摘要號碼 92-67-1), 2-萘胺 (化學摘要號碼 91-59-8)或 2, 4-二氨基苯甲醚(化學摘要號碼 615-05-4)被檢測出時, 如果沒有額外的資料說明(例如著色劑的化學結構等), 被檢測樣品是否使用上述限制偶氮著色劑則無法確認。

當試樣有 PU 材質時, 例如 PU 泡棉、塗層或印花, 無法排除部份苯胺如 4, 4'-二胺基二苯甲烷(簡稱 MDA, 化學摘要號碼 101-77-9)跟 2, 4-甲苯二胺(簡稱 TDA, 化學摘要號碼 95-80-7), 可能源於 PU 釋出而不是限制偶氮著色劑

萬一當顏料印花製程中一定要使 4, 4'-二胺基二苯甲烷(簡稱 MDA, 化學摘要號碼 101-77-9), 那麼 4, 4'-二胺基二苯甲烷就可能不是源於限制偶氮著色劑而是來自於化學固色劑

測試方法 ISO 14362-1: 2017 的方法會將對氨基偶氮苯進一步還原為 苯胺跟 1, 4-苯二胺; 如果兩者或是任一的檢測結果是"未偵測出"(濃度小於 5 毫克/公斤), 那麼對氨基偶氮苯 (CAS no: 60-09-3) 的測試結果, 就以"未偵測出"表示 (也就是濃度小於 5 毫克/公斤), 反之, 就要以 ISO 14362-3: 2017 方法進一步確認對氨基偶氮苯的含量。

測項 1~7 由 SGS 相關實驗室執行

8. 可遷移性螢光物質 (參照中華民國國家標準 CNS 11820 P3082)

陰性

備註: 陰性= 試樣無可遷移性螢光物質
陽性= 試樣有可遷移性螢光物質

9. 酸鹼值 (依國際標準組織 ISO 3071:2020)

6.1

備註: 萃取液 pH 值: 5.0 - 7.5
萃取液溫度: 22±2°C

*** 結 束 ***