

安鋒實業股份有限公司

台中市工業區 24 路 29 號 TEL:886-4-23501155 (代表) FAX:886-4-23507373

E-mail:anvictor@ms45.hinet.net 網站:www.twanfong.com

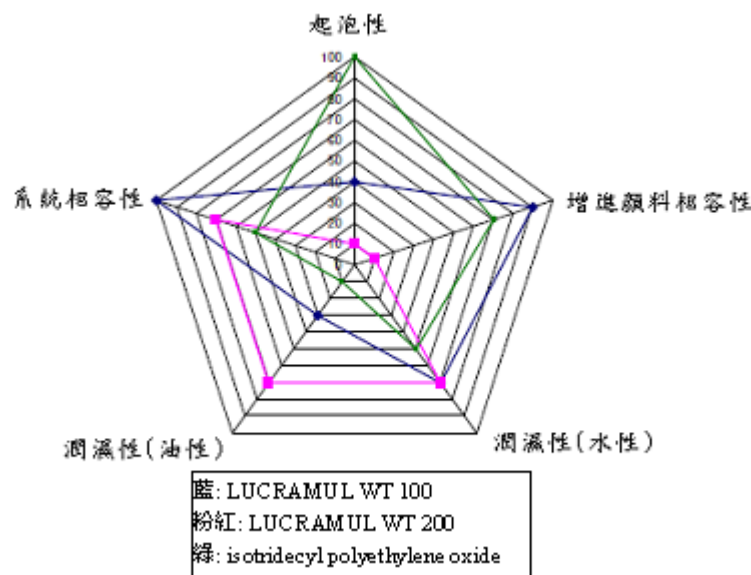
低起泡性多功能底材潤濕、相容劑 LUCRAMUL WT 100

規格：

化學成份	：醇聚（乙烯/丙烯已二醇）醚
色相	：無色到淡黃色液體
PH 值（1%水溶液）	：5.0~7.0
有效成份	：100%
粘度(20°C)	：108mPa.s
密度（20°C）	：1.0~1.1g/cm ³
離子性	：非離子
水中互溶性	：是
有機溶劑互溶性	：醇.酯基.蔬菜油，芳香族和脂肪族溶劑互溶
HLB	：5.8

特性：

1. 低起泡性的潤濕劑，適用於水性和溶劑系統，從酸性到鹼性無負性能，它是**無溶劑和無 APEO**。
2. 低起泡的潤濕劑，極佳的溶解性和相容性，**增進底材潤濕性，增進系統中色漿的相容性，PH 穩定**。
3. **強烈降低動態表面張力及靜態表面張力，只加 0.1%不到一秒鐘將水的動態表面張力降到 28mN/m(牛頓力)。非常快速及有效的濕潤性**。
4. 低起泡性潤濕劑和**共溶劑（co-solvent）帶有高乳化效果。在調色系統（tinting system)做為相容劑，減少色差**。
5. 溶於廣範圍溶劑，對其它表面活性劑，聚合物、樹脂、顏料、其他底材和它們的配方有特別相容性。
6. WT 100 提供系統有較佳分散性、同質性(homogeneity)、鋪散性(spread)及薄膜生成。



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應用：

1. 多種工業應用及金屬切削液加工配方的乳化劑、黏度安定劑。
2. 做為滲透促進劑和相容劑用於木材處理化學品，木器底漆、塗料給予木材有天然視覺，加強較深的滲透作用，增加附著力、塗料的耐候性和緊密的塗膜形成。
3. 特別做為 alkyd 乳液生產的乳化劑，對許多水不互溶的溶劑和油(非極性對極性)，當做為潤濕劑和高效乳化劑。
4. 對 Silane 微乳化顯示極佳的乳化性能。粒徑小於 200 nm，有很窄的粒徑分佈，相容性及滲透增進。
5. 多功能濕潤劑。
6. 在幾乎所有種類的顏料製備中可作為相容劑及色強度增強劑。
7. 對於含有有機溶劑和油的水可提供自發性乳化作用。
8. 在木器處理及塗料可作為滲透促進劑。

WT 100 作為相容助劑：

1. 對於其他表面活性劑、聚合物、顏料、助劑和相關配方有極佳相容性。
2. 可以有效改善水性和油性塗料中顏料濃縮物間的相容性。
3. 建議添加量為顏料濃縮物總配方的 0.5~3.0%。
4. 可提供較佳同質性、減少顏料分色及浮色(rub-out-effect)。可以減少顏料用量。

下圖為在白色底漆上分別塗上添加/未添加 WT 100 的有機/無機顏料



上半部：未添加 WT 100 下半部：顏料濃縮物中添加 1% WT 100

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顏色測試數據：

顏料種類	測試數據					
	L*	a*	b*	c*	h°	
紅 P.R. 122 (無 WT100)	67.41	35.17	-14.11	-37.90	338.15	
紅 P.R. 122 (+1% WT100)	ΔL^*	Δa^*	Δb^*	Δc^*	Δh°	ΔE
	-1.40	2.26	-1.20	2.55	-0.26	1.27
黑 P.Bk. 7 (無 WT100)	54.85	-1.11	-4.94	5.06	257.01	
黑 P.Bk 7 (+1% WT100)	ΔL^*	Δa^*	Δb^*	Δc^*	Δh°	ΔE
	-1.51	0.05	0.13	-0.13	0.02	0.68
紫 P.V. 23 (無 WT100)	49.63	11.26	-29.65	31.72	290.79	
紫 P.V. 23 (+1% WT100)	ΔL^*	Δa^*	Δb^*	Δc^*	Δh°	ΔE
	-1.65	0.70	-0.76	0.96	0.38	0.95

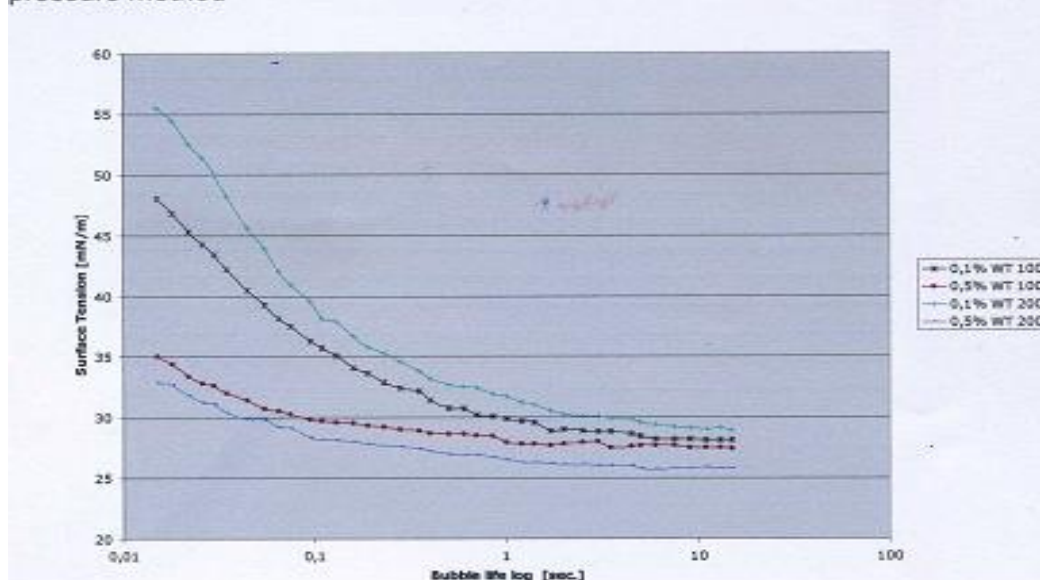
木器處理：

1. WT 100 在木器處理過程中可作為塗料的增強滲透促進劑。
2. 獨特濕潤性和乳化性允許塗料滲透到木器時有較高、較深的滲透。
3. 有效影響表面張力→濃縮物能夠快速、有效率地散佈快速以達到最佳結果。
4. WT 100 的溶劑性和乳化性可幫助塗料的移動性維持較長時間。
5. 木器顏色會較顯色，但不會損失木器天然的質地和觸感。

用量：

1. 總配方量的 0.5~1.0%，最佳用量依據應用配方多種參數試驗決定。
2. 當相容劑：配方的 0.5~3.0%，可以事後添加，減少顏料的分色、浮色(rub-out-effect)，增強色相強度。

Surface Tension of WT 100 and WT 200 measured by bubble pressure method

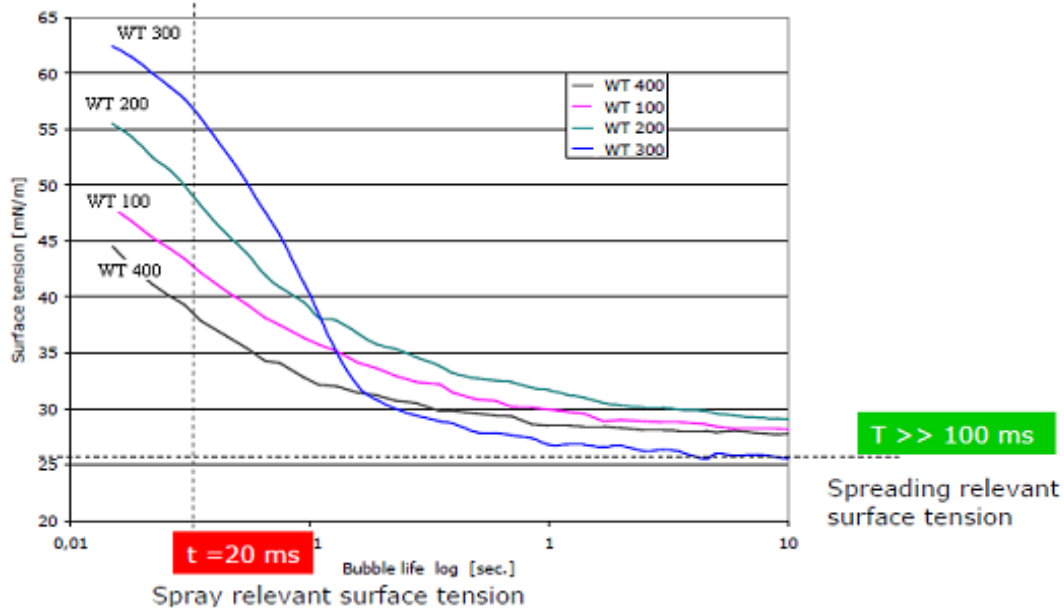


大陸手機:1350-9624401(技術), 1382-5211745(業務)

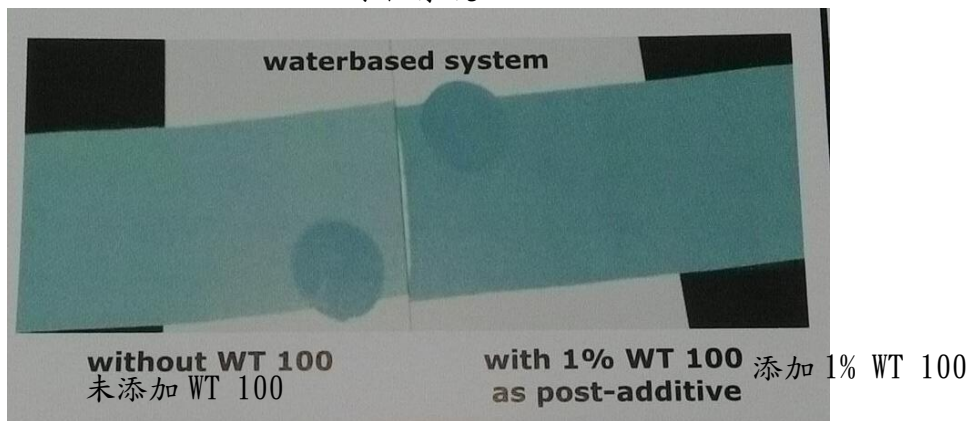
第3頁, 共6頁 (第七版 2018.06)

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水性系統



LUCRAMUL® WT 100 as compatibilizer

In paints, inks, varnishes and coatings, incompatibilities between different ingredients are one of the main reasons for troubles in the formulation and end application of the systems. The usage of universal pigment concentrates in waterbased and solventbased formulations can lead to problems as well as the incorporation of a mixture of inorganic and organic pigment preparations at the same time. But in principle, many other interactions of the pigments, binders and multitude of additives used are possible and can cause incompatibilities.

The effects of incompatibilities can be as diverse as the root causes. Surface defects, poor color development and stability, flooding and floating of the pigments, separation, agglomeration, and many more can be the outcome of incompatibilities.

LUCRAMUL® WT 100 is an outstanding compatibilizer and color strength enhancer for nearly all kind of pigment formulations. The product is low foaming, soluble in many different organic solvents, oils and water. It has an excellent compatibility towards other surfactants, polymers, pigments, additives and their formulations. The product can be added during formulation or as a post-additive in concentrations of 0.5 – 3.0% to obtain the best performance.



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In recent years, more and more universal pigment concentrates have been developed and established. Nevertheless, those universal concentrates can likely cause incompatibilities in white base coats during the tinting process.

LUCRAMUL® WT 100 strongly improves the compatibility of pigment concentrates in waterbased and solventbased base coats. The recommended dosage for best results is between 0.5 – 3.0% based on total formulation in the pigment concentrate to obtain the best results. The improvement of the compatibility by **LUCRAMUL® WT 100** results in a better homogeneity, reduction of flooding and floating (rub-out effect) of the pigments and a color strength enhancement.

The color strength enhancement is among the multitude of positive effects caused by **LUCRAMUL® WT 100** maybe the most advantageous one. A higher color strength initiated by an additive allows the possibility to reduce the amount of pigment.

The color strength enhancing effect has been proved in various laboratory tests using different waterbased and solventbased white base coat formulations and a broad variety of inorganic and organic pigment concentrates. Positive effects on color strength can be seen, even if there is no real remarkable incompatibility in the formulation present. Some results of color measurements with and without the use of **LUCRAMUL® WT 100** are shown in the table below. The data clearly underline the color strength enhancing power of **LUCRAMUL® WT 100**, which is only one effect beside the multitude of value-adding properties of our product.

The color strength enhancing effect can be visually experienced in the pictures on the left page and can be also analytically validated by measuring the color strength of the paints without or with **LUCRAMUL® WT 100** in the pigment concentrate (1% based on total formulation of the pigment concentrate). The color strength enhancing effect leads to a stronger color or to cost savings by obtaining the same color shade with a reduced amount of pigment.

Pigment type	Color measurement data					
	L*	a*	b*	c*	h°	
P.R. 122 (without WT 100)	67.41	35.17	-14.11	37.90	338.15	
P.R. 122 (+1% WT 100)	ΔL^*	Δa^*	Δb^*	Δc^*	ΔH^*	ΔE
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P.V. 23 (+1% WT 100)	ΔL^*	Δa^*	Δb^*	Δc^*	ΔH^*	ΔE
	-1.65	0.70	-0.76	0.96	0.38	0.95

Table 2: Color measurement data of **LUCRAMUL® WT 100**

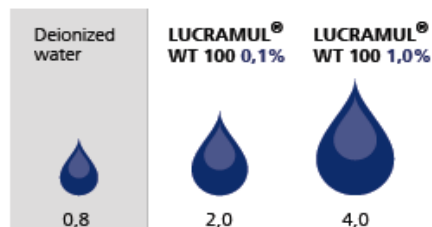
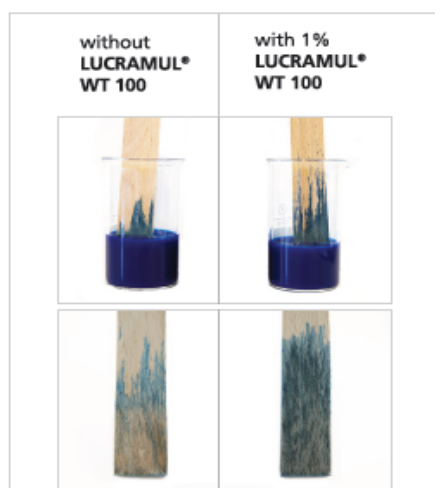
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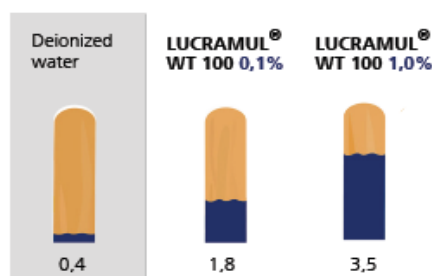
WOOD TREATMENT

LUCRAMUL® WT 100 is a strong penetration promoter for coatings in the wood treatment process. Its unique wetting and emulsifying properties enable a much higher uptake and deeper penetration of the applied coatings into the wood. Lab results show clearly the advantages of **LUCRAMUL® WT 100** in wood treatment formulations.

Comparison of penetration behavior (wetting height and uptake)



water uptake in g
test conditions: hardwood panel, dipped for 5 min



wetting height in cm
test conditions: hardwood panel, dipped for 5 min

The penetration promotion is supposed to be based on a combination of different properties of **LUCRAMUL® WT 100**. It has a strong impact on the surface tension, which allows the coating to spread fast and efficient. This leads to an excellent wetting of the wood surface, which is the prerequisite for penetration into the wood structure. Additionally, the solvent character and emulsifying properties help to keep the coating mobile for a longer time, thus leading to better penetration of the wood in axial and horizontal direction of the wood fibres.

The penetration of the wood surface is an essential requirement in wood treatment and in wood coatings. The improved penetration for biocides for example significantly increases the longterm resistance against fungus, insects and other unfavorable external influences. Additionally, it gives an improved adhesion and durability of the coating, due to the incorporation of the coating in the wood structure and the closed film formation.



LUCRAMUL WT® 100 supports the natural look and haptic of wood.

Beyond that, by applying **LUCRAMUL® WT 100** containing coatings the wood color becomes more intense without losing natural texture and haptic of the wood. The recoatability is not affected in a negative way.

包裝：

55KG/桶，200KG/桶

儲存：

存放於 5~35°C 室內陰涼乾燥處，避免陽光照射遠離火氣。