LANGLOIS-MARTIN

Saint-Ouen-sur-Iton, October 1st 2019

Subject: Newsletter on Langlois-Martin products

Dear customers,

Following many questions asked by some of you about the so-called "eco-responsible" materials, we wanted to inform you more specifically about the specificities of our productions and give you a well-reasoned argument to meet your own customers.

80% of our fabrications are made from cellulose acetate.

Cellulose acetates are derived from a transformation of cotton or wood fibers (80% of the composition) added to solvents (20%) which evaporate mainly during the process. Under its appearance of plastic material, **it is the most ecological material currently existing, biodegradable, hypoallergenic** and able to allow the manufacture of our articles.

- We use cellulose acetate for the following finishes: 3000, 5000, 6000, 7000, 11.000, 12.000, 13.000, 14.000, 16.000, Leopard Colors, Art Deco Porcelain Colors and our range of Nacrolaques.

- Unfortunately, for technical reasons, metallised cellulose acetate no longer exists since the 80s. Also, all our "Metallic" finishes (2000, 2500, 8000, 9000, 10.000, 17.000, 17.500) and lately the colors " Perliane 4600 " are produced in **phthalate-free PVC**. It is, with polyester, one of two existing plastic supports to achieve the metallic appearance of a sequins.

- Our "Perliane 4501" is, for its part, made according to a unique and artisanal processing method invented by our company **on a cellulose acetate basis and called "Perlirio"**. It is therefore possible for us to reproduce all the colors of our 4600 range with this process. However this technique imitates the "Perliane" but does not replace it completely in its aesthetic characteristics. It is therefore necessary to accept an aspect tolerance to consider using it.

Finally, we were often asked why we did not use polyester in our fabrications. First of all, you have to know that polyester is an extremely tough plastic material with little deformability. Also, this feature prevents its use for the realization of our fantasy sequins. Moreover, even if this petroleum derivative can be partly recycled, **it is unfortunately not "eco-responsible" and will always end up in non-degradable waste.**

As for our varnishes, these are also produced from cellulose.

Our know-how allows us to manufacture all of these varnishes and therefore our thousands of colors. If this step, entirely artisanal, requires the addition of solvents and dyes, we would like to remind that all our fabrications always answer the same basic principle: **To make the least waste possible and to produce by limiting the waste**. Also, we will always prefer a manual varnishing that will consume **10 times less varnish than a mechanized production for the same quantity of article.**

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Of course, all these coatings and all the materials we use meet the **REACH standard** and all our residues (varnishes, solvents or cutting waste) are removed and treated in an environmentally friendly way by an approved company, namely Suez.

As for the "carbon footprint" of our products, **you must know that all our materials come from France and Europe.** The imposed quantities that we must buy cause us to store our raw materials over several years. Their carbon footprint is therefore very spread over time with little impact on the balance sheet of a production.

All stages of transformation of our articles (colors and cutting) **are entirely realized in our workshop of Normandy in France.** Our know-how remains mainly manual and is therefore not very energetic. Our EPV label (Excellence of French Know-How) guarantees the uniqueness and craftsmanship of our processes for all our products, even in the case of large quantities of manufacturing requiring mechanical intervention.

Finally, concerning the so-called "organic plastics" materials, there are very many for which the organic aspect is not always proven especially as their manufacture remains complicated and their cost of production much higher than other plastics, including Cellulose Acetate.
We regularly inquire with different organizations to know in what measures it could be made in sufficient thicknesses and quite varied finishes (Black, Ivory, White, Transparent ...) to replace the current Acetates.
In any case, one must know, on the one hand that recyclable plastics based on corn or potato starch currently also include a part of so-called mineral materials (ie PET or polyester), and that, on the other hand, their generalization will implies an increase in the production of these basic plant materials, therefore a greater need for arable land, the possibility of GMO agent allowing a better productivity but also a greater use of water.

We also want to make it clear that all these new materials will certainly have an impact on the cleaning conditions of the clothes they are applied to, like the old gelatin elements that dissolve easily with water.

In any case, at present, we have not yet found other more "eco-responsible" materials than the ones we already use, in sufficient thickness and quality to be processed and allow the manufacture of 25 millions possible items from our collection.

We hope to have given you enough informations to reassure you on our productions and especially to allow you to answer external requests.
However, if some of you need more information, do not hesitate to contact us or come to see us in Normandy. We will be delighted to welcome you and share with you the centenary know-how of the unique centenary french sequins.

Best regards

JB Drachkovitch

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