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## **X-1R Global Ltd**

**To:** All X-1R distributors                      **From:** Nigel (Mac) McKenzie

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**Cc:**    **Date:** 5<sup>th</sup> June 2024

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**Subject:** Colourisation of CVT Products

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Recently there has been a question concerning the colour of the Continuously Variable Transmission Product. In short, the 'complaint' came from a customer who took a small sample of the product and declared it to be different due to the colour appearing to be yellow or golden unlike the reddish colour he was expecting and had previously sold. The evidence presented to me was a picture of a small amount of product on a glass saucer/plate that did indeed appear to be a much lighter shade than the one produced by us at our factory in Daytona.

To get to the bottom of this I asked for samples of the product to be sent to me for analysis. At both our Global HQ in Daytona and our regional HQ in Kuala Lumpur we have control samples. These are taken from every Tote (bulk carry containing 1140 litres of product) and we can trace back every bottle via the batch codes on the product packaging.

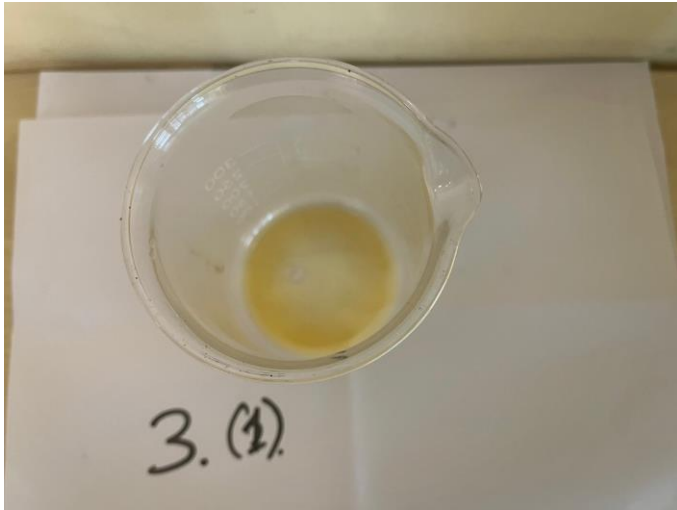
Once the sample arrived, we performed a quick initial visual colour inspection and noticed that the colour of the returned product was identical to our control sample. We also performed various other tests including specific gravity analysis, lubricity, and some others. All the tests performed within the limits expected and thus we had no doubt that the product was the same and manufactured by us in our plant in Daytona, Florida.



**Sample 1. Returned from Customer Sample 2. Control sample**

With all of our products there can and will often be small variations in the colour due to two factors. Firstly, the ambient temperature at which we manufacture can alter the colour slightly, and secondly, our Liquid Waxy Ester is photosensitive and can darker in sun-light.

Neither of the above can produce the 'yellow' colour as described by our customer. However, during the process of returning the samples to storage I noticed that the residue in the inspection flasks appeared yellow when viewed in small amounts against a white background. I am very much of the conclusion, therefore, that the problem was one of how the product was viewed and 'tested' and not a problem with our manufacturing processes.



***Sample 3. During clean-up I noted that when viewed in small amounts the [product will appear to be a much lighter colour that could be described as Yellow or golden.***

Many times, in the past we have encountered problems when testing is performed without proper protocols. We all like to think we are scientists but most of us are not. When testing a product, it is essential that proper protocols are followed. Of course, in the workshop we have become accustomed to pulling the dip-stick and doing a quick visual check on the oil to see how dark it is and then rubbing some between the fingers to check for graininess. This is adequate for most purposes, it is not scientific though. For a real test of colour you need to employ some real scientific equipment starting with some form of Spectrophotometers.

Please rest assured that the quality of our product is job number one. We do not vary the formulation at anytime and you can rest assured that everything that is distributed in South East Asia (and the rest of the world) comes from the same factory in Daytona manufactured to the same standard. All product is quality inspected before it leaves the factory and inspected once again when it arrives in Malaysia.

Nigel (Mac) McKenzie  
June 2024