

NATURAL NYLON HOUSING INSULATOR MATERIAL DECLARATION

INTRODUCTION

Nylon is a commonly used material in appliance manufacturing due to its excellent plasticity. However, to enhance its melt performance, manufacturers often incorporate various additives into the nylon resin formulation. These additives can sometimes lead to changes in color under different environmental conditions.

SUMMARY

With over 55 years of experience in connector design and manufacturing, EDAC has amassed a wealth of knowledge in this field. Through extensive discussions with nylon manufacturers, EDAC engineers have synthesized detailed guidelines regarding acceptable color variations to ensure product integrity.

Natural nylon typically exhibits a white coloration, although slight variations may occur depending on the specific resin supplier. However, due to the presence of heat stabilizers containing Cu^{2+} ions, it is not uncommon for nylon to develop a green tint after absorbing moisture. Additionally, factors such as storage conditions and duration can contribute to the nylon housing gradually turning yellow over time.

The issue of discoloration manifests in hues of green, yellow, or a darker white, as depicted in Figure 1 below.



Figure 1

CONCLUSION

The color variation of housings can vary from transparent to green or yellow due to the resin's hygroscopic properties. However, it's important to note that these color changes do not impact the Form, Fit, and Function of the product. This assurance is provided by the resin supplier.

Discoloration is a natural occurrence in nylon resin and does not impact the Form, Fit, and Function of the product.

For further details, please reach out to support@edac.net.

Prepared By: Mit Patel (Quality Engineer) – EDAC