Technical Information
PS04

Performance Pigments and Colors

Camouflage Pigments

In this technical information leaflet Ferro presents the pigments for camouflage application.

The most common colours in the military area are green, brown, black, and desert yellow. A very important property of camouflage colours is that they can merge an object with its surrounding in the visible as well as in infrared light. As the environment has a natural reflection in the infrared light, the camouflage colours also need to show this reflection.

The production of camouflage colours is very demanding as only a limited number of inorganic and organic pigments shows a suitable spectral curve in the IR area.

The specifications for camouflage colours are determined by the NATO and/or national defense ministries. Within these guidelines the RAL colour shades and the reflection values are fixed.

Our camouflage pigments obtain their extraordinary properties through special production processes and are in accordance with the current guidelines for camouflage colours.

The product range contains a few standard products only, because every country has its own specifications. Therefore Ferro offers the colour shade mixture as a special service. If you provide us a colour sample, the IR reflection specification and the test methods, we will develop mixtures which fulfil your individual requirements. According to the application, we are able to test in plastics as well as in paints.

Fig. 1: Image in the visible spectral range

Fig. 2: Image in the infrared range
(left with camouflage colours, right without)

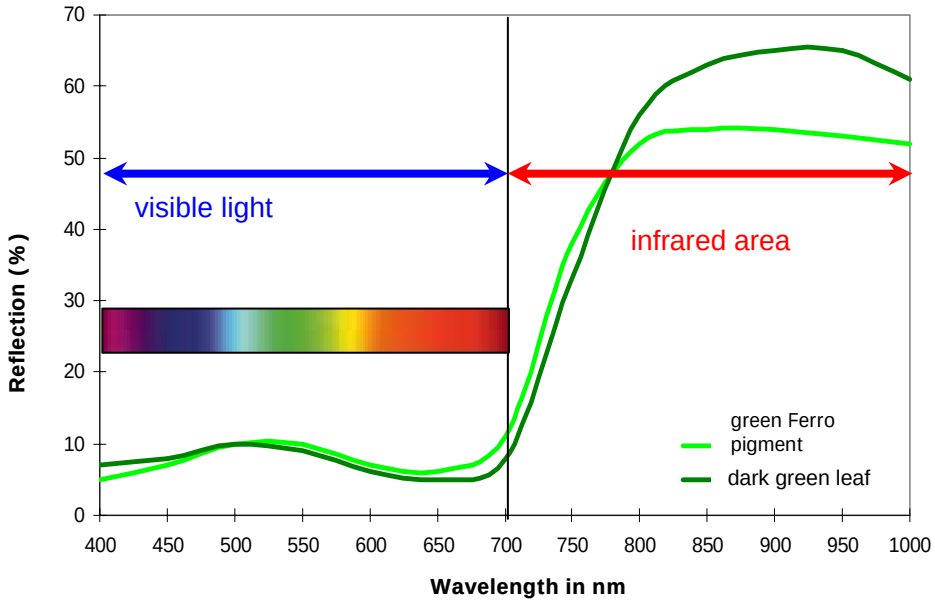

Fig. 3: Comparison of the spectral curve of chlorophyll with a typical Ferro camouflage pigment

Figure 3 visualizes the spectral curve of chlorophyll in comparison to our camouflage pigments.

Independent of the visual colour appearance of the single leaf, in the total spectral range foliage always shows the typical curve of chlorophyll. To disguise objects in vegetation, the objects have thus to be coated with a pigment that has a very similar spectral curve. This is even more important if not only the visible light is considered, but the infrared range as well.

In figure 3 it is clearly shown that even in the infrared range the curve progression of the green Ferro camouflage pigments is very similar to that of chlorophyll. Therefore an excellent camouflage effect can be achieved.

Colour Sample	Product No.	Application	Specification
	21-4898 PK	Paint	NATO IRR
	21-4904 PK	PVC coatings	NATO IRR
	21-4915 PK	PVC coatings	RAL 6031 F9
	21-4934 PK	Paint	RAL 6031 F9
	26-4925 PK	Paint	RAL 8027 F9
	24-3600 PK	Paint	RAL 9011

The pigments shown here represent only a small selection from our product range.
While every attempt has been made to reproduce colours exactly, the colour samples may differ slightly from the original.

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