CRYSTIC® Polyester Pigment Pastes

Pigment Pastes for Use in Polyester Gelcoats & Resins

Introduction
Crystic Polyester Pigment Pastes are specially formulated for use in polyester gelcoats and resins. 32 colours are available from stock and are listed on our standard colour range, (see Technical Leaflet No. 175). Other BS & RAL standards, as well as special matches to individual customer requirements, are available to order. These are subject to minimum order quantities.

Applications
Crystic Polyester Pigment Pastes are formulated for use in unfilled, brush viscosity polyester gelcoats and general purpose unfilled lay-up polyester resins. They are often quite suitable for use with other gelcoat and resin systems. However, to avoid problems with viscosity separation, water and chemical resistance, weathering etc. it is recommended that sample tests are carried out by the customer before use. Some colours are not suitable for low-taint applications.

Crystic Polyester Pigment Pastes can be used for other applications not involving polyesters, e.g. epoxy flooring. Sample tests should always be carried out by the customer before use. Please consult our Technical Service Department for any advice on the above applications.

Features and Benefits
The pigment powders used to manufacture Crystic Polyester Pigment Pastes are finely dispersed in a medium which cross links into the base resin during curing. Crystic Polyester Pigment Pastes do not normally contain any fillers or other extenders.

Formulation
An 8-10% addition of Crystic Polyester Pigment Paste will normally give an acceptable level of opacity in polyester gelcoats. However, the addition of black pigment paste should be limited to 5%. For many applications an addition of 10% white pigment paste will give insufficient opacity. In this case either a pre-pigmented gelcoat or a pigmented backing resin should be used. Some deep or bright colours may also give insufficient opacity and a pigmented backing resin is again recommended. A 4-5% addition of pigment paste to the appropriate polyester resin is recommended. Crystic Polyester Pigment Pastes should be thoroughly dispersed in the gelcoat or resin before the addition of the catalyst. This can be done by stirring well by hand or with a low shear mixer to avoid aeration. When mixing by hand, we recommend that the pigment paste is dispersed in a small quantity of gelcoat or resin before being added to the bulk.

For critical applications, pre-pigmented gelcoats or resins should be used wherever possible.

Weathering
All Crystic Polyester Pigment Pastes have been tested for colour fastness to BS1006 modified method BO3. In most cases a result of 7 has been obtained. In some instances, notably reds, oranges and yellows, a result of 5-6 has been obtained. With these particular colours a slight, uniform darkening is experienced instead of fading. Our experience has been that a slight darkening is far less noticeable than a similar degree of fading. For critical use,superior weathering versions of these colours are usually available. Natural weathering of Crystic Polyester Pigment Pastes is carried out at our Wollaston site. Each pigment is tested at full strength, and in dilution with white, in an isophthalic gelcoat faced laminate. The tests last 2 years and are carried out on an exposed site facing south at 45° to the horizontal.

PP Colour	WF	PP Colour	WF	PP Colour	WF
337	7	**1275**	6-7	**2178**	6-7
335	5*	**1389**	7	**3060**	6*
630	7	**2114**	7	**3474**	7
1187	7	**2162**	7	**3572**	7
1212	7	**2170**	6	**3952**	7
1229	6-7	**2176**	7	**3969**	7

PP Colour	WF	PP Colour	WF	PP Colour	WF
3972	7	**5201**	6*	**6723**	7
4021	7	**5312**	5*	**6819**	7
4029	7	**5352**	5*		
4030	7	**6003**	7		
4265	7	**6680**	7		
4305	5-6*	**6682**	7		

W.F. - Weather fastness according to BS1006 modified method B03 where 7 is the best figure obtainable
* signifies colour darkens

Colour Reproducibility
Crystic Polyester Pigment Pastes are subject to strict quality control tests during manufacture. However, good colour reproducibility can be achieved only by the customer taking extreme care in weighing the pigment pastes and other additives e.g. catalyst. As with other coloured materials, exact matching of multi-component moulded assemblies can be obtained only by the use of the same mix for all the sub-components of the assembly.

Storage
Crystic Polyester Pigment Pastes should be stored in the dark in suitable, closed containers. It is recommended that the storage temperature should be less than 20°C and where practical, should not exceed 30°C. Ideally, containers should be opened only immediately prior to use. Where they have to be stored outside, it is recommended that they are kept in a horizontal position to avoid the possible ingress of water. Under these conditions, unopened containers will be stable for at least 6 months, and may remain usable for many years. The contents of containers should be stirred thoroughly before use.

Packaging
Crystic Polyester Pigment Pastes are available in 25kg and 225kg containers. The standard colour range is also available in 5kg containers.

Health & Safety
Please see separate Material Safety Data Sheet.

Version 2: February 2013

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