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## Technical Data



LLEWELLYN RYLAND.

### TD09.02 PLQ03 Polyester Primer

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#### Characteristics

PLQ03 Polyester Primer is a grey, sprayable primer system for plugs and patterns. Due to the filler content and low viscosity, a sediment may occur on standing. PLQ03 Polyester Primer should be re-dispersed using a mechanical mixer for best results.

PLQ03 Polyester Primer is supplied in a ready-to-spray viscosity – however, if solvent is lost through the re-mixing process, small amounts of either Ethyl Acetate, Acetone or Methyl Ethyl Ketone, (whichever is most readily available) may be added at  $\geq 5\%$ .

PLQ03 Polyester Primer is designed as a primer system for most substrates. However, some absorbent substrates may need the application of Llewellyn Ryland PLQ01 Safeseal prior to application of the primer.

#### Preparation

Whilst not always necessary, best adhesion to the surface by the primer is achieved by abrading the substrate with 80-120 grit paper. Alternatively PLQ01 Safeseal can be used to seal the surface, in which case no abrasion of the substrate is necessary.

Before application of the primer, ALWAYS remove dust and grease by wiping the substrate with solvent. This practice is not necessary when using PLQ01 Safeseal if the primer is being sprayed whilst the sealer is still tacky.

#### Application

Due to the filler content and low viscosity of the primer a sediment may occur; for best results, re-disperse the primer with a mechanical mixer. It is important even if only a small quantity is to be decanted from the tin that the whole tin is fully re-dispersed. This procedure must be performed each time the primer is used. Failure to comply with the re-dispersing procedure may lead to application and sanding problems which ultimately jeopardise the overall quality of the finished article.

On re-dispersion of the primer, it should be of a viscosity that is ready to spray through conventional gravity feed or pressure pot paint gun systems. If however, through the re-dispersion process the primer has thickened slightly, it is possible to add additional solvent to achieve a sprayable viscosity. As a guide  $\geq 5\%$  of either Acetone, Ethyl Acetate or Methyl Ethyl Ketone can be used to lower viscosity, but where more than 5% solvent is required seek advice from Llewellyn Ryland's Technical Department.

PLQ03 Polyester Primer is designed to cure at an ambient temperature above 16°C with 2% of a medium reactive Methyl Ethyl Ketone Peroxide (Butanox M50 type).

At an ambient temperature of 20°C PLQ03 Polyester Primer will give a spray pot life of approximately 20 minutes. Pot life will vary depending on the temperature; shortening as temperature increases and lengthening as temperature drops; therefore, only catalyze sufficient primer that can be applied in the pot life application window.

It is recommended that a 2.5mm gun nozzle is used when using conventional gravity feed or pressure pot spray systems at between 40-55psi. If air pressure is too high it can lead to rippling of the surface and air entrapment within the film. Whilst these are recommendations, each application shop will be different and therefore methodology may change from shop to shop.

Best application results are achieved by applying a 'Tack' or 'Dust' coat to the entire surface of the substrate and then continuing with wet passes of up to 250 micron each pass until the desired thickness is reached at up to 1000 microns. If too high a film thickness is achieved on each pass, air entrapment may lead to porosity when rubbing down on completion; and if a total film thickness of over 1000 microns is achieved; slippage or sagging may occur.

Film gelation should occur within 45 minutes at an ambient temperature of 20°C. Film gel time will be significantly affected by ambient temperature; decreasing with an increase in temperature and increasing with a drop in temperature.

Films should be ready for sanding within 4 – 5 hours depending on ambient temperature.

Spray equipment can be cleaned with Acetone, Ethyl Acetate or MEK (Methyl Ethyl Ketone).

#### Finishing

PLQ03 Polyester Primer can be simply abraded back with various grit papers to achieve different levels of gloss:

- Achieve required contour with low grit paper 220 – 400;
- For a matt finish: finish the plug with 400 – 800 grit papers;
- For semi matt finish use 800 – 1200 papers;
- For a gloss finish use 1200 paper and fine cutting paste;
- When moulding from a matt or semi matt surface, Llewellyn Ryland would recommend using a hard mould release wax in conjunction with a Llewellyn Ryland PVA release agent – please contact our sales office for further details.

#### Technical Data

Colour:	Grey
Specific Gravity:	1.3g/cc +/- 0.05g
Viscosity:	380 – 500 Cps
Thixotropic Index:	3 – 3.5
Pot gel time:	100gms @ 25°C with 2% M50 14 – 19 minutes
Film gel time:	2% M50 @ 20°C <60 minutes
Coverage:	5 Ltr / 13m <sup>2</sup> / 250µ