

PAT-ADD DA 788

Product Data Sheet

Rev 00

August 2019



Product Features

PAT-ADD DA 788 is a unique stabilizer for water in organic solvent borne alkyd resins and coatings.

PAT-ADD DA 788 stabilizes water in organic solvent borne alkyd paints. By the use of Pat-Add DA 788, solvent-borne alkyd paints are formulated replacing part of the mineral spirits with water.

This results in reduction in VOC content, at lowest cost!

Main benefits are:

- Enabling paint cost reduction by water addition
- Enabling reduction in VOC level.
- Typically, 20 to 35% of traditionally used white spirit in alkyd paint may be replaced with water, using Pat-Add DA 788 stabilizer!

Physical Characteristics:

Appearance	: Pale yellow clear liquid
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Viscosity @ 25°C	: 100 – 600 cP
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Specific gravity @ 25°C	: 1.300 (approx..)
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Polarity	: Anionic
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Active matter content	: 45.0%
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“Physical parameters indicated here in product data sheet are typical properties and not specification limits or range.”

Properties:

As water is insoluble in white spirit or those alkyd resin solutions, incorporation of water into the resin solution under mid to high shear conditions will result in formation of dispersed water droplets. However, without further stabilization support, this dilution will separate. Thanks to the unique electrostatic stabilization action of polyelectrolyte Pat-Add DA 788, water droplets will stay separated and a stable emulsion is formed. The product thus supports proper stabilization of water into non-aqueous alkyd resin solutions and alkyd paint.

Contrary to the use of classical emulsifiers, side effects such as foam generation are kept to a minimum.

PAT-ADD DA 788 is used in a wide range of alkyd resin based paint systems, including paints based on medium or long oil alkyd and styrenated alkyd resins.

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Dosage & Addition

PAT-ADD DA 788 is preferably premixed with part of the alkyd resin. Typical formulation for the “Pat-Add DA 788 diluted alkyd resin” is:

- 1) Starting with 20% alkyd resin, 60% solids, in white spirit
 - 2) Adding approx. 1% Pat-Add DA 788 under mid to high shear mixing conditions (equivalent to approx. 2000 rpm lab mixer), in 2 min.
 - 3) Dilute subsequently under same mixing conditions in 2 min. with 15 % white spirit
 - 4) Dilute further with 64% water, same mixing conditions, in approx. 20 min.
- Resin solids: 12%

Above “Pat-Add DA 788 diluted alkyd resin” is used in the let-down stage of a regular paint manufacturing process at a dosage of approx. 35 to 55%. As no extra white spirit is required, meaning the final paint containing **23 to 36% water!** Specific recipes can be made available.

Alternatively, Pat-Add DA 788 is applied directly during paint manufacturing process and added immediately after milling to the mill-base, followed by dilution with water.

Applicability of PAT-ADD DA 788 to be used is resin and system related and best determined in each case individually. The optimum concentration to be used depends on the individual requirements and conditions.

Shelf life

The product has shelf life of 24 months from the date of manufacturing; packed in unopened original containers as shipped by Patcham when stored in frost free warehouse.

Storage, transportation, Safety and Handling

For information on handling, storage and safety please refer to the information from the Material Safety Data Sheet (SDS).

Packing size

Drum: - 250.0 kgs, Can: - 30.0 kgs, IBCs: - 1250.0 kgs.

Disclaimer:

While every effort is made to provide accurate and complete test results for The PATCHAM ADDITIVES, various data may vary depending upon different raw materials, test procedures and test conditions. The accuracy, reliability, or totality of the results are not guaranteed or warranted in any way. PATCHAM FZC and its representatives disclaim liability of any kind whatsoever, including liability for quality, performance and fitness for a particular purpose arising out of the use, or inability to use the test results.