

POLYPHASE® PW20CR

Dry-Film Preservative

**Paints & Coatings
& Material Protection/US**

EPA Registration No.: 5383-197

Polyphase® PW20CR is a 20% dispersion of 3-iodo-2-propynyl butylcarbamate (IPBC) in a controlled release format. The product is specifically designed to significantly reduce the leaching of IPBC due to exposure of the finished product to water.

Application & Use

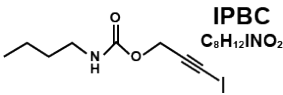
Polyphase® PW20CR is a fungicide for use in interior & exterior coatings, caulks and sealants, pigment dispersions, colorants, grouts, adhesives. Unlike conventional controlled release IPBC preservatives, Polyphase® PW20CR utilizes a novel encapsulation technology to achieve slow leach characteristics. For a preservative to be effective, it must be available at a minimum concentration to control infection throughout the entire time that it is protecting the matrix in which it is contained. Conventional slow release technology extends the duration of protection, but it significantly reduces the concentration of preservative available to prevent early microbial growth. Polyphase® PW20CR is specifically designed to overcome this weakness.

This product is suitable for systems with a pH of <9 and at a temperature up to <60°C.

Product Highlights

- Effective against a wide spectrum of fungi
- Enhanced color stability & resistance to yellowing
- Reduced leaching through controlled release of active ingredient
- Improved in-can stability compared with non-encapsulated IPBC based products

Active Substance

20.0%	3-Iodo-2-propynyl butyl carbamate	 <p>IPBC C₈H₁₂INO₂</p>
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Physical Properties

The following are typical properties of Polyphase® PW20CR; they are not to be considered product specifications.

Appearance:	Off-white yellowish dispersion
Specific Gravity, 25°C:	1.15 - 1.18
pH (as is)	6 - 8
Specific Gravity, 20°C [g/ml]	1.16
pH (20°C)	7

Formulating Considerations

Polyphase® PW20CR should be added with good agitation or mixing. It should not be added in the grind phase and is best added late in the production process. It should be fully dispersed prior to the pH adjustment of the batch. When adding IPBC to the batch, the operator should never combine IPBC in the same container with strong amines or other reducing agents or strong oxidizers.

Enhanced broad-spectrum protection can be achieved with the addition of a Troysan® algicide, which is especially valuable for coatings marketed across wider geographies. Your Arxada representative can provide assistance and algicide recommendations.

Field testing of final products under actual use conditions is strongly recommended. Do not store formulated products for prolonged periods in unlined iron or steel containers, as the degradation of the active ingredient is corrosive. Due to various possibilities of application and different methods of processing, it is advised to check compatibility in the development of new products. Contact your Arxada representative for assistance.

Shelf-life is 6 months from date of manufacture.

Function/Activity

The following suggested use levels are based on laboratory tests and are typical for the applications indicated. The actual level required for your system is formulation specific. The selection of the individual components of the formulation, the substrate to be coated, and the environment in which the coating will be exposed all have an influence on the amount of protection needed. Suggested use levels are reported as percentage of the end-use product.

Paints and Stains

Polyphase® PW20CR has been shown to be an excellent control agent against a variety of fungal species in water-based paints, stains, and coatings. In hot, humid areas where fungi are a particularly severe problem, the upper application levels are suggested. Polyphase® PW20CR should be added with good agitation at the end of the manufacturing cycle.

Building Materials

Polyphase® PW20CR provides excellent wet-state and dry-film fungal control in adhesives, caulks, cements, grouts, sealants, and stucco. In hot, humid areas where fungi are a particularly severe problem, the upper application levels are suggested. Polyphase® PW20CR should be added with good agitation at the end of the manufacturing cycle.

Paper Coatings

Polyphase® PW20CR provides excellent dry-film fungal control in non-food contact paper coatings. Polyphase® PW20CR should be added at temperatures below 60°C.

Pigment Dispersions

The slow release activity of Polyphase® PW20CR is particularly well suited to control fungal control in dispersed pigments, extender slurries, and colorants.

Function	% Wt/Wt
Adhesives, Caulks, Cements, Grouts, Sealants & Stucco	0.12 - 1.20%
Canvas & Cordage	1.10 - 4.10%
Dispersed Pigments	0.50 - 4.10%
Inks	0.11 - 6.00%
Metalworking	0.05 - 0.15%
Paints & Stains	0.80 - 4.80%
Paper Coatings	0.11 - 1.50%
Plastics	1.10 - 5.00%
Textiles	0.20 - 2.00%
Wood	1.10 - 4.10%

Packaging

Polyphase® PW20CR is packaged in:

Package Type	Net Weight
Large Drum	450 LBS / 204.1 kg

Product Safety & Additional Information

For handling, storage, health, and safety information and disposal procedures, as well as additional information, please refer to the Safety Data Sheet (SDS) and label.



For more information visit:
www.arxada.com

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