

Printing & Packaging

Industrial Coatings

Technical Data Sheet

Joncryl[®] Wax 4



Product Description	Joncryl [®] Wax 4 is a highly efficient, large particle size, polyethylene wax emulsion for printing ink and industrial coating applications.
Key Features & Benefits	<ul style="list-style-type: none">- Excellent rub and scuff resistance- Very low foam- Cost effective
Chemical Composition	Polyethylene wax emulsion

Properties

Typical Properties	Appearance	opaque emulsion
	Non-volatile at 145°C (1g, 30 min)	~ 42.0%
	pH at 25°C	~ 11.0
	Viscosity at 25°C (Brookfield #3 LV, 60 rpm, 30 sec)	~ 500 – 1,500 cps
Typical Characteristics	Appearance	opaque emulsion
	Non-volatile	~ 40.0%
	pH	~ 9.0
	Viscosity at 25°C (Brookfield #2 LVF spindle, 12 rpm)	~ 1,000 cps
	Average Particle Size	~ 4 µm
	Density at 25°C	0.94 g/cm ³
	Softening Point (ring and ball)	110°C
	Total VOC	< 0.005% wt

These typical values should not be interpreted as specifications.

Applications

Joncryl[®] Wax 4 is a highly efficient, large particle size polyethylene wax dispersion designed to impart outstanding rub and scuff resistance to water-based ink formulations. Its unique composition results in very high rub and scuff resistance at low use levels. For this reason, this product is extremely effective.

Joncryl[®] Wax 4 is recommended for applications such as:

- Printing inks for flexographic or gravure applications
- Interior/exterior wood coatings for flooring, furniture, or millwork applications

Processing	Joncryl [®] Wax 4 is supplied as easy to use, high solids dispersion. Use levels as low as 1.3% (0.5% wax solids) has been found to be effective in many instances. The following chart illustrates a comparison of Joncryl [®] Wax 4 with some typical wax products used in various formulations.
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Application	Substrate	Joncryl® Wax 4			Competitive Waxes	Used wet (%)	Used dry (%)	Rub cycles passed (#)
		Used wet (%)	Used dry (%)	Rub cycles passed (#)				
Inks	--	--	--	--	--	--	--	
Label/packageging	Coated paper	1.3	0.5	500+	PE emulsion or dispersion	5 – 10	2.5	400
					PE/carnauba, PTFE powder	--	2.5	500+
Film printing	PE film	1.3	0.5	300	PE emulsion or dispersion	5.10	2.5	100
High quality corrugated	Liner board	1.3	0.5	300	PE powder, PTFE powder	--	2.5	50
		2.5	1.5	500				
Overprints	--	--	--	--	--	--	--	
Folding carton	Coated board	1.3	0.5	500	PE emulsions	10	2.5	300

As with many wax dispersions, it is recommended to mix well before using since wax solids tend to migrate to the surface during storage.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Joncryl® Wax 4.

Important

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