

ACCL EMULSION POLYMERS

Cement and Mortar Modification

The logo for AL TAIR is a blue oval with a white border. Inside the oval, the words "AL TAIR" are written in a bold, red, sans-serif font. The letters are slightly shadowed, giving the logo a three-dimensional appearance.

DL 455 Styrene Butadiene Latex Dispersion

DL 455 styrene butadiene latex dispersion is suitable for a range of construction applications including: primers, mortars and concrete offering significant improvement in properties compared to those of unmodified systems. This is an APEO free product.

Typical Properties	DL 455
% Solids	48.0
pH	10.5
RVT viscosity, 50 rpm, mPa.s	100 max
MFFT °C	12
Applications	
Bridge deck repair	
Industrial floors	
Park house decks	
Concrete repair and protection	
Features	
Reduced water and chemical permeability	
Flexural strength	
improved adhesion to concrete substrates	
Improved concrete freeze thaw stability	

Recommended Starting Point Formulations

Primer

Material	Weight, kg
Portland Cement	1000
Fine sand (0-2mm)	1000
DL 455 (48%)	400
Water	up to 200 as required

Mortar 0-4 mm

Material	Weight, kg
Portland Cement	530
Sand (0-4mm)	1470
DL 455 (48%)	166
Water	83
Polymer to Cement Ratio = 0.15	
Water to Cement Ratio = 0.32	

Mortar 0-8 mm

Material	Weight, kg
Portland Cement	470
Sand and gravel (0-8mm)	1530
DL 455 (48%)	147
Water	74
Polymer to Cement Ratio = 0.15	
Water to Cement Ratio = 0.32	

Concrete 0-12 mm

Material	Weight, kg
Portland Cement	390
Sand and gravel (0-12mm)	1630
DL 455 (48%)	122
Water	62

Polymer to Cement Ratio = 0.15

Water to Cement Ratio = 0.32

Concrete 0-16 mm

Material	Weight, kg
Portland Cement	370
Sand and gravel (0- 16mm)	1640
DL 455 (48%)	116
Water	58

Polymer to Cement Ratio = 0.15

Water to Cement Ratio = 0.32

Concrete 0-32 mm

Material	Weight, kg
Portland Cement	340
Sand and gravel (0-32mm)	1670
DL 455 (48%)	106
Water	54

Polymer to Cement Ratio = 0.15

Water to Cement Ratio = 0.32

Note: All formulations are based on Swiss cement and aggregates. It is absolutely necessary to test locally available materials prior to use in intended application.

Typical Performance Characteristics

The table below describes typical performance characteristics that can be obtained for mortars and concrete modified with DL 455, according to recommended formulations and raw materials.

Property	Typical value
Compressive strength, N/mM2	40-65
Flexural strength, N/mM2	8-15
Adhesion to concrete, N/mM2	1.5-5
Freeze thaw stability	Excellent
Modulus of elasticity, N/mM2	25000-30000
Water absorption, %	2-4

Note: Actual performance will depend on the choice of formulation and quality of the raw materials used. For more technical information contact your local sales representative.

Safety Considerations

Material Safety Data Sheets for ACCL latex are available from the ACCL Sales or representation offices to help customers further satisfy their own safe handling and disposal needs. Such information should be requested from the supplier(s) of any product(s) prior to working with it.

Customer Notice

ACCL encourages its customers to review their application of ACCL products from the standpoint of human health and environmental quality. To help ensure that products are not used in ways for which they are not intended or tested, local personnel will assist customers in dealing with ecological and product safety considerations. Your local representative can arrange the proper contacts.

Notice

The information and data contained herein do not constitute sales specifications. No liability, warranty or guarantee of final product performance is created by this document. No freedom from any patent is granted or to be inferred. (May 95)

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Supersedes: