



VISCOLAM

Acrylic and polyurethane based rheology modifiers for the metal industry

CASE laboratory



DISCLAIMER

While we believe that the information contained herein is accurate and reliable, it is presented without any guarantee or responsibility of any kind and does not constitute any representation or warranty of Lamberti SpA, either expressed or implied. Various factors may influence the performance of water based binders and chemical additives, including other materials used, formulation, and processing conditions, all of which must be considered by the user in producing or using the products. The user should not assume that the data indicated herein are exhaustive or complete or that no other measures may be necessary. The information provided herein does not relieve the user from the responsibility of conducting their own tests and experiments, and the user assumes all risks and liabilities (including, but not limited to, risks related to results, patent infringement, regulatory compliance, and health, safety, and environment) associated with the use of the products and/or information contained herein.



Products range & performance

Low shear thickeners

Increased stability

Prevent settling

Increased in-can viscosity effectively

Low-Medium shear thickeners

In-can viscosity at low dosages

Suitable for adjusting viscosity in the latest phase of production

Sag resistance & levelling balance

Medium-high shear thickeners

Effective thickening at low dosages

Reduced roller spattering

Smoothness & sag resistance at once

High shear thickeners

Improved gloss

Improved smoothness

Increased thickness

Reduced roller spattering



Viscolam

Acrylic thickeners

- High thickening efficiency
- Pigment compatibility
- Broad range of rheology behavior (from extremely shear-thinning to highly Newtonian)
- Easy handling: thickening mechanism is triggered by alkaline pH
- Solvent-free & SVOC/VOC free



Viscolam PS

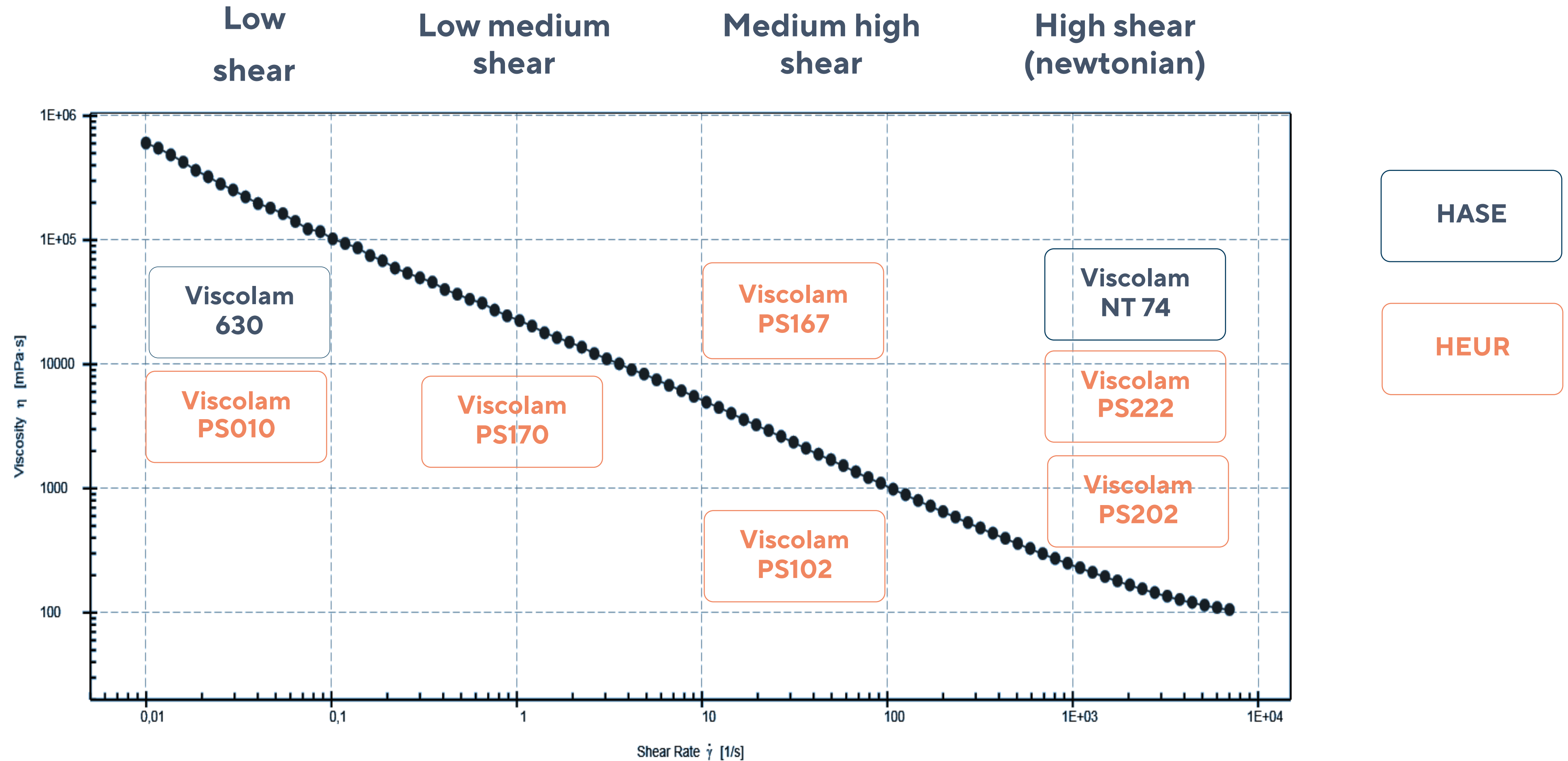
Polyurethane thickeners

- Wash-ability resistance
- Outdoor resistance
- Broad range of rheology behavior (from shear-thinning to Newtonian)
- Viscoelastic behavior improves paint flow-ability
- Suitable for high gloss waterborne formulations
- Solvent-free & SVOC/VOC free grades available

The products described in this presentation represents a selection among all available grades, based on key application properties required for DTM. For any other specific technical requirement or info please contact our sales network

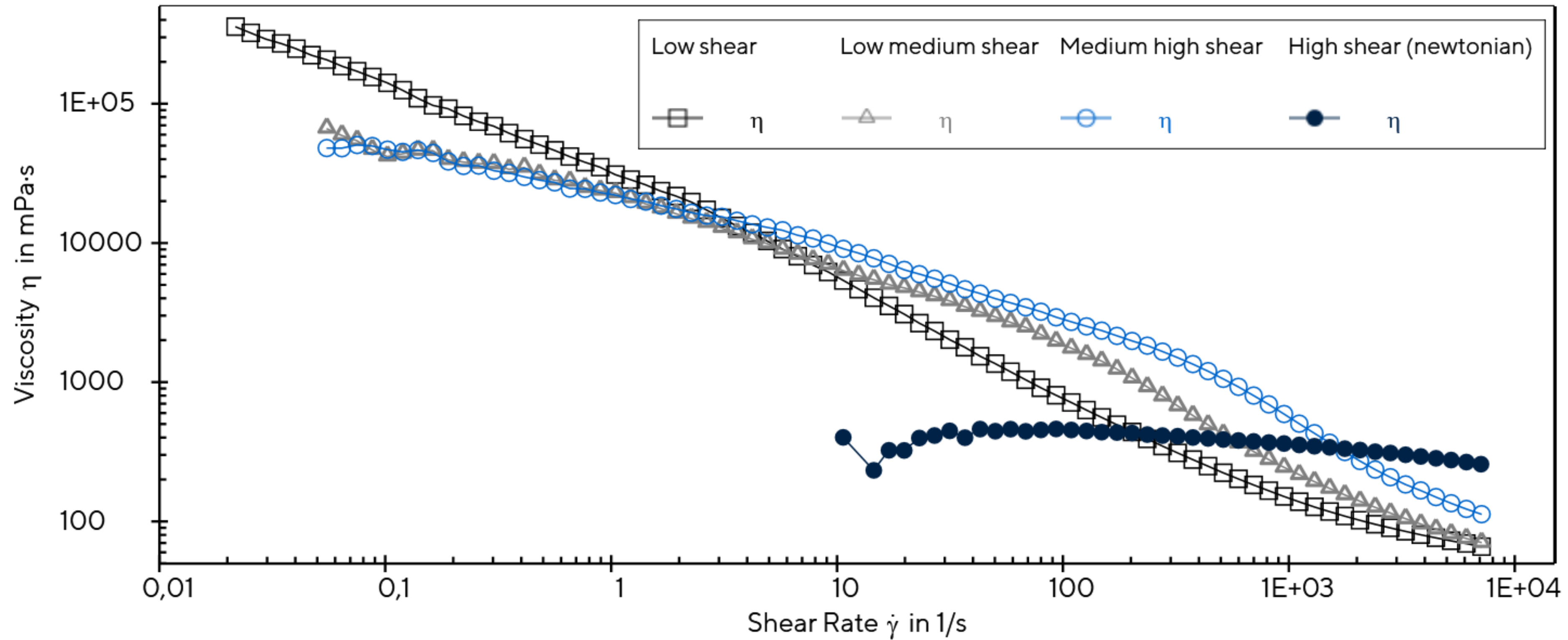


Products range & shear rates





Products range & flowing behavior



Acrylic thickeners

Viscolam 630

Chemical description

Acrylic copolymer water based emulsion (HASE)

Main use

Highly shear-thinning thickener for waterborne paints

Typical values

Appearance at 20°C: milky liquid

pH (25°C, ASTM E70): 2.0 - 4.0

Viscosity (Brookfield RVT at 25°C, 20 rpm, spindle 5, 0.5% solution based on active, pH 9.0): 1.000 - 4.000 cPs

Solid content: 29 - 31%

APEO: free

VOC: free*

* According to ISO 11890-2:2006

- Ready to use & easy to handle
- High thickening efficiency
- Excellent sag resistance
- Excellent anti-settling properties
- High brush-ability at high shear rates
- Prevent syneresis during long storage
- ¹⁴C content about 31%

Viscolam NT 74

Chemical description

Water based emulsion of an associative acrylic copolymer (HASE)

Main use

Rheology modifier/ICI builder for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH (25°C, ASTM E70): 2.0 - 4.0

Viscosity 5% solution (Brookfield RVT at 25°C, 20 rpm, pH9.0): 2.000 cPs max

Solid content: 29.0 - 31.0%

- Ready to use & easy to handle
- High shear thickening efficiency
- ¹⁴C content about 27%

Polyurethane thickeners



Viscolam PS 010 AIR

Chemical description

Solvent free and VOC/SVOC free, Hydrophobically modified Ethoxylated URethane (HEUR)

Main use

Highly shear thinning solvent-free and VOC/SVOC free rheology modifier for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 10.0

Viscosity (Brookfield CAP 2000, 25°C, 10 rpm):
< 8.000 cPs

Dry content (120°C): > 39.5%

Co-solvent: None

APEO: free

VOC: free*

* According to Council Directive 2010/75/EU

- Ready to use & easy to handle
- Strong shear thinning behavior
- High thickening efficiency
- Exceptional pigment compatibility
- Suitable for glossy waterborne formulations

➤ ¹⁴C content about 19%



Viscolam BIO PS 010 AIR

Chemical description

Solvent free and VOC/SVOC free, Hydrophobically modified Ethoxylated URethane (HEUR)

Main use

Highly shear thinning solvent-free and VOC/SVOC free rheology modifier for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 10.0

Viscosity (Brookfield CAP 2000, 25°C, 10 rpm):
< 8.000 cPs

Dry content (120°C): > 39.5%

Co-solvent: None

APEO: free

VOC: free*

* According to Council Directive 2010/75/EU

- Ready to use & easy to handle
 - Strong shear thinning behavior
 - High thickening efficiency
 - Exceptional pigment compatibility
 - Suitable for glossy waterborne formulations
- ¹⁴C content about 64%

Viscolam PS 102

Chemical description

Hydrophobically modified water soluble Ethoxylated polyUREthane (HEUR)

Main use

Thickener/rheology modifier for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH: 5.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
1.000 - 5.000 cPs

Co-solvent: 15% 2-(2-butoxyethoxy)ethanol

Solid content: 24 - 26%

- Ready to use & easy to handle
- High versatility
- Moderate thickening efficiency
- Good balance between leveling and sag resistance

Viscolam PS 167

Chemical description

Hydrophobically modified water soluble Ethoxylated polyUREthane (HEUR)

Main use

Thickener/rheology modifier for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent yellow liquid

pH: 5.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
max 8.000 cPs

Co-solvent: 23% 2-(2-butoxyethoxy)ethanol

Solid content: 39 - 41%

- Ready to use & easy to handle
- High efficiency
- Good balance between leveling and sag resistance
- Cost effective
- Suitable for glossy formulations

Viscolam PS 170 AIR

Chemical description

Solvent free and VOC/SVOC free, Hydrophobically modified Ethoxylated Urethane (HEUR)

Main use

Solvent-free and VOC/SVOC free rheology modifier for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent yellow liquid

pH: 4.0 - 10.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
max 8.000 cPs

Dry content (120°C): > 46.5%

Co-solvent: None

APEO: free

VOC: free*

* According to Council Directive 2010/75/EU

- 20% of biobased carbon content
- Solvent free
- VOC free
- Ready to use & easy to handle
- High thickening efficiency
- High compatibility with pigments
- Excellent rub out test performance
- ¹⁴C content about 20%

Viscolam PS 202 AIR

Chemical description

Hydrophobically modified water soluble Ethoxylated polyUREthane (HEUR)

Main use

Rheology modifier/ICI builder for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
1.000 - 6.000 cPs

Solid content: 19 - 21%

- Solvent free
- VOC free
- Ready to use & easy to handle
- Highly suitable for high gloss formulations
- Provides strong film build properties
- Provides excellent flow and leveling
- Stable over a broad range of pH



Viscolam BIO PS 202 AIR

Chemical description

Hydrophobically modified water soluble Ethoxylated polyURethane (HEUR)

Main use

Rheology modifier/ICI builder for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
1.000 - 6.000 cPs

Solid content: 19 - 21%

- Solvent free
- VOC free
- Ready to use & easy to handle
- Highly suitable for high gloss formulations
- Provides strong film build properties
- Provides excellent flow and leveling
- Stable over a broad range of pH
- ¹⁴C content about 94%

Viscolam PS 222 AIR

Chemical description

Hydrophobically modified water soluble Ethoxylated polyUREthane (HEUR)

Main use

Rheology modifier/ICI builder for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
max 9.000 cPs

Solid content: 24 - 26%

- Ready to use & easy to handle
- Suitable for gloss & semi gloss formulations
- Strongly Newtonian behavior
- Highly efficient high-shear viscosity builder
- Stable over a broad range of pH



Viscolam BIO PS 222 AIR

Chemical description

Hydrophobically modified water soluble Ethoxylated polyURethane (HEUR)

Main use

Rheology modifier/ICI builder for interior and exterior waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
max 9.000 cPs

Solid content: 24 - 26%

- Ready to use & easy to handle
 - Suitable for gloss & semi gloss formulations
 - Strongly Newtonian behavior
 - Highly efficient high-shear viscosity builder
 - Stable over a broad range of pH
- ¹⁴C content about 94%



metal@lamberti.com