



Acrylic and polyurethane
based rheology modifiers
for the metal industry



- *Low shear thickeners*

- Increase stability
- Prevent settling
- Increase in-can viscosity effectively

- *Low-medium shear thickeners*

- Provide in-can viscosity at low dosages
- Suitable for adjusting viscosity in the latest phase of production
- Offer nice balance between sag resistance and levelling

- *Medium-high shear thickeners*

- Provide effective thickening at low dosages
- Reduce roller spattering
- Provide smoothness and good sag resistance at once

- *High shear thickeners*

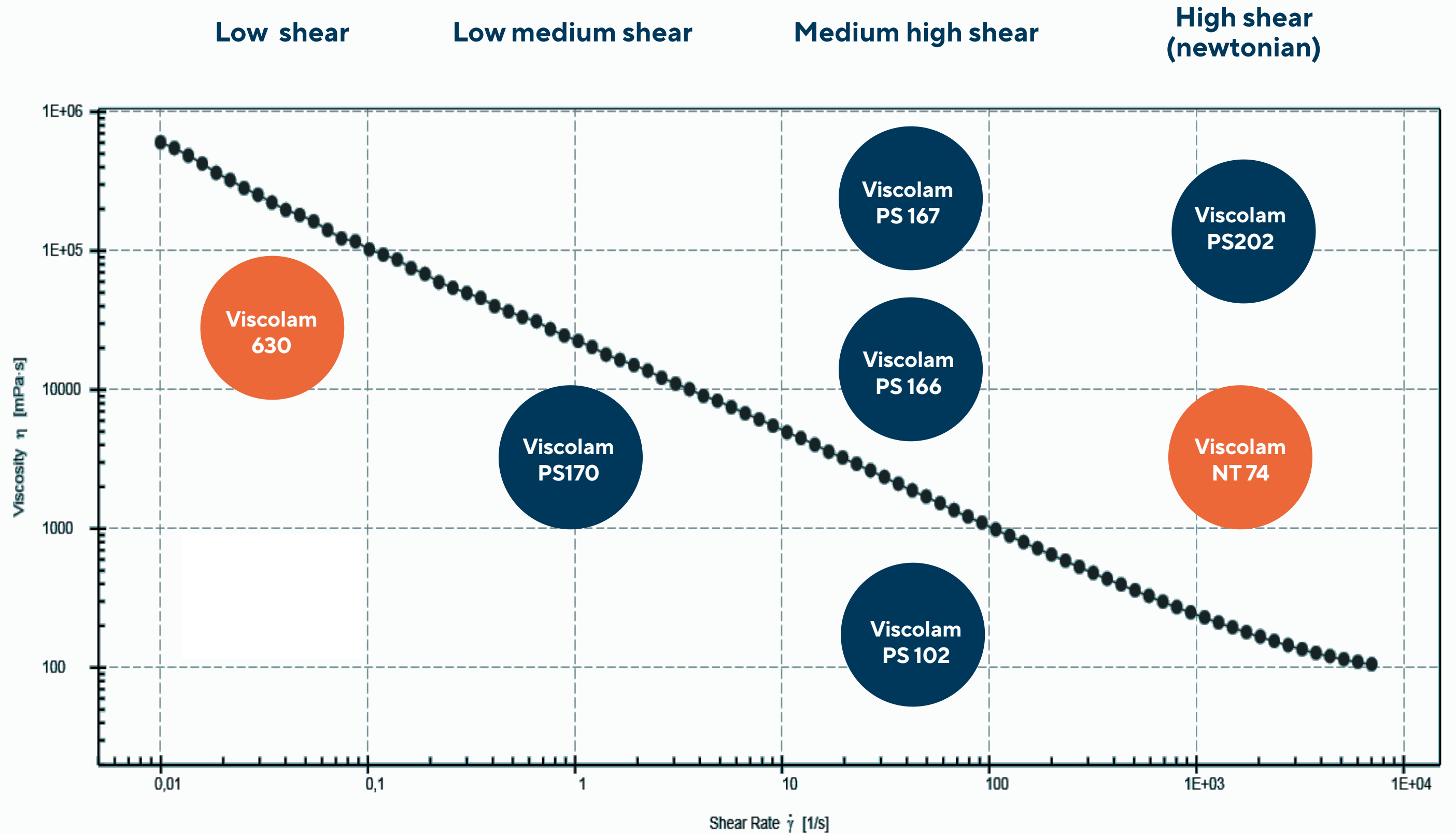
- Improve gloss
- Improve smoothness
- Increase thickness
- Reduce roller spattering



Products range & shear rates

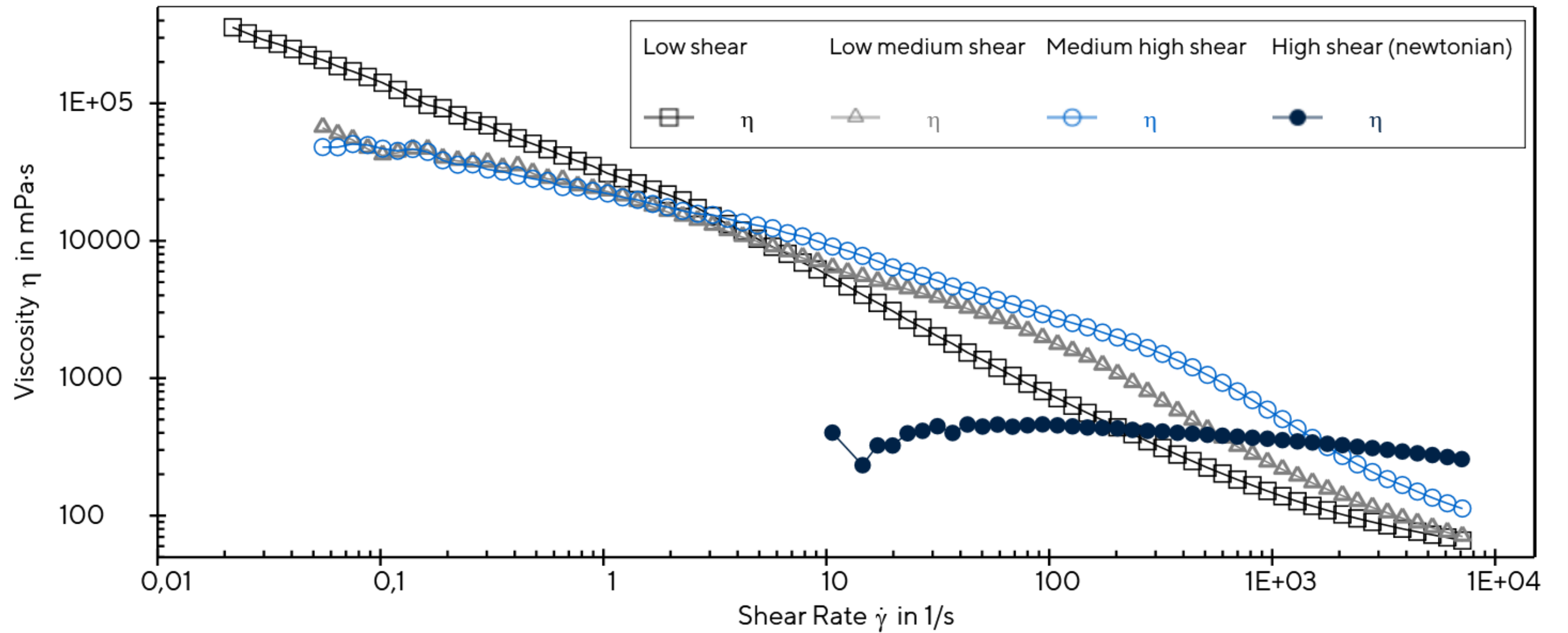
HASE

HEUR





Products range & flowing behavior





Acrylic thickeners



Viscolam[®] 630

Chemical description

Acrylic copolymer water based emulsion (HASE)

Main use

High 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)

1000 – 4000 cPs (0,5% solution based on solid, pH 9)

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



Viscolam[®] NT 74

Chemical description

Acrylic copolymer water based emulsion (HASE)

Main use

High shear thinning thickener for waterborne paints

Typical values

Appearance at 20°C: opalescent liquid

pH (25°C, ASTM E70): 2.0 – 4.0

Viscosity 5% (Brookfield RVT at 25°C, 20 rpm, spindle 5)

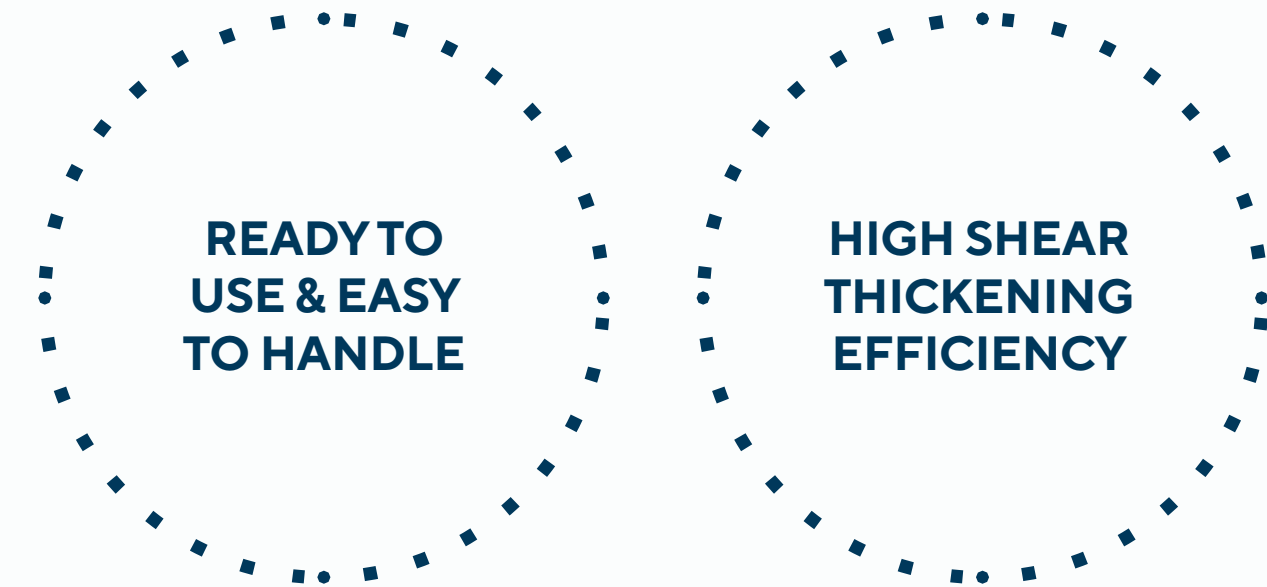
<2000 cPs

Solid content: 29 – 31%

APEO free

VOC free*

*According to ISO 11890-2-2006





Polyurethane thickeners



Viscolam[®] PS 102

Chemical description

Hydrophobically modified water soluble ethoxylated polyurethane (HEUR)

Main use

Thickener / rheology modifier

Typical values

Appearance at 20°C: opalescent liquid

pH (25°C, ASTM E70): 5.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3)

1000 - 5000 cPs

Solid content: 24 - 26%

Co-solvent: 15% butyl carbitol

APEO free

**READY TO
USE & EASY
TO HANDLE**

**HIGH
VERSATILITY**

**MODERATE
THICKENING
EFFICIENCY**

**GOOD BALANCE
BETWEEN
LEVELING AND
SAG RESISTANCE**



Viscolam[®] PS 166

Chemical description

Hydrophobically modified water soluble ethoxylated polyurethane (HEUR)

Main use

Thickener / rheology modifier

Typical values

Appearance at 20°C: opalescent yellow liquid

pH (25°C, ASTM E70): 5.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3)
<8000 cPs

Solid content: 39 - 41%

Co-solvent: 23% 2-butoxyethanol

APEO free

READY TO
USE & EASY
TO HANDLE

HIGH
EFFICIENCY

GOOD
BALANCE
BETWEEN
LEVELING AND
SAG
RESISTANCE

COST
EFFECTIVE

SUITABLE FOR
GLOSSY
FORMULATIONS

PREVENT
SYNERESIS
DURING LONG
STORAGE



Viscolam[®] PS 167

Chemical description

Hydrophobically modified water soluble ethoxylated polyurethane (HEUR)

Main use

Thickener / rheology modifier

Typical values

Appearance at 20°C: yellow liquid

pH (25°C, ASTM E70): 5.0 – 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3)
<8000 cPs

Solid content: 39 – 41%

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

APEO free

READY TO
USE & EASY
TO HANDLE

HIGH
EFFICIENCY

GOOD
BALANCE
BETWEEN
LEVELING AND
SAG
RESISTANCE

COST
EFFECTIVE

SUITABLE FOR
GLOSSY
FORMULATIONS

PREVENT
SYNERESIS
DURING LONG
STORAGE



Viscolam[®] PS 170 AIR

Chemical description

Solvent free and VOC/SVOC free hydrophobically modified water soluble ethoxylated polyurethane (HEUR)

Main use

Thickener / rheology modifier

Typical values

Appearance at 20°C: opalescent yellow liquid

pH (25°C, ASTM E70): 4.0 - 10.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3)

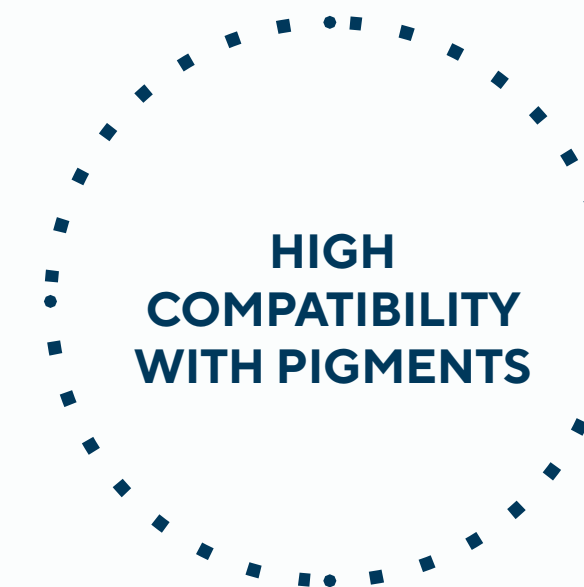
<8000 cPs

Co-solvent: none

APEO free

VOC free*

*According to ISO 11890-2:2006





Viscolam[®] PS 202

Chemical description

Hydrophobically modified water soluble ethoxylated polyurethane (HEUR)

Main use

Rheology modifier / ICI builder

Typical values

Appearance at 20°C: opalescent liquid

pH (25°C, ASTM E70): 4.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3)

1000 - 6000 cPs

Solid content: 19 - 21%

Co-solvent: none

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[®]

Acrylic thickeners

- High thickening efficiency
- Pigment compatibility
- Broad range of rheology behavior (from extremely **shear-thinning** to highly **Newtonian**)

- VISCOLAM[®] ASE and HASE provide **easy handling** since their thickening mechanism is triggered by alkaline pH.

- VISCOLAM[®] ASE and HASE grades are **solvent-free** and **SVOC/VOC free**.

Viscolam[®] PS

Polyurethane thickeners

- Wash-ability resistance
- Outdoor resistance

- Their peculiar viscoelastic behavior improves the flow-ability of waterborne formulations, making them the premium choice for high quality paints, varnishes, floor coatings and high gloss waterborne formulations.

- Specific grades are **solvent-free** and **SVOC/VOC free**.

- They are able to provide from **shear-thinning** to **Newtonian** rheology.



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