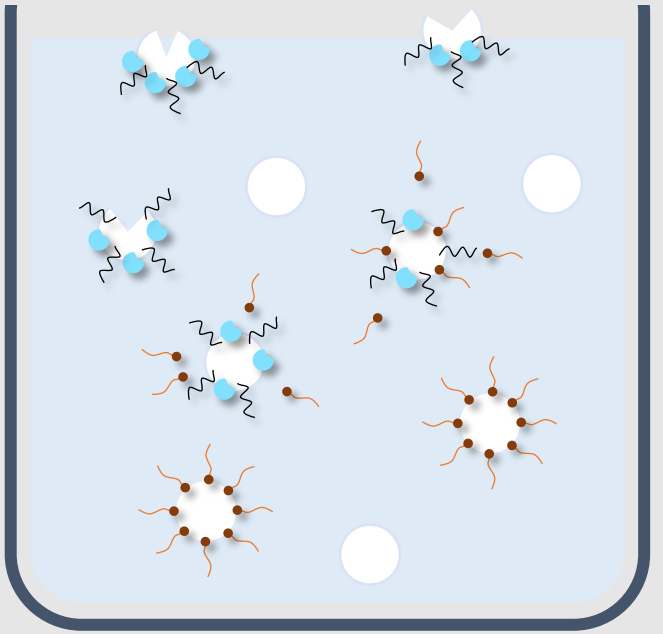
POLYWILL
Driven By Your Challenges

Architectural Coating

Defoamer Product Line

Defoaming Principle

Defoaming Mechanism



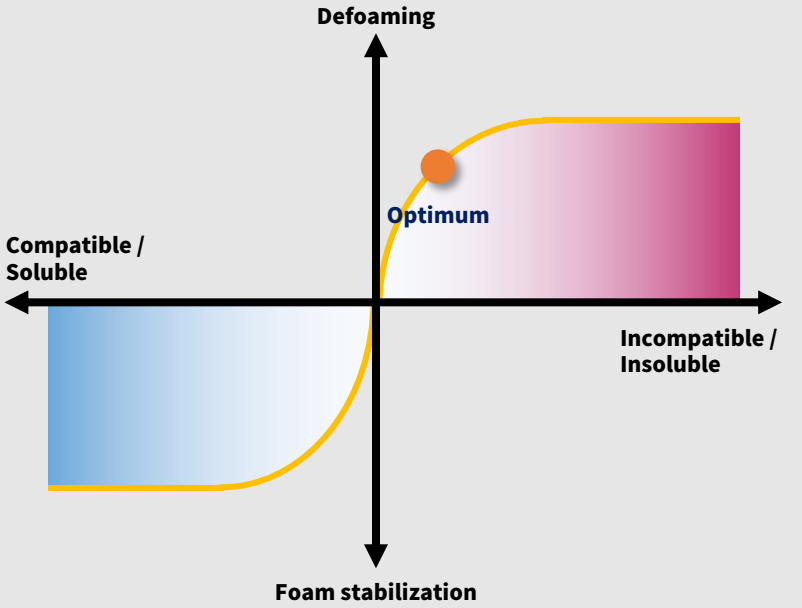
Dispersing

Incompatible Polymers

Hydrophobic Particle

Surfactant

Selection Criteria



- **Blue zone:** Excellent compatibility & Low defoaming efficiency.
- **Red zone:** Bad compatibility & High defoaming efficiency.
- **Optimum:** Balanced defoaming efficiency & Compatibility.

Defoamer Category

Mineral Oil Defoamer

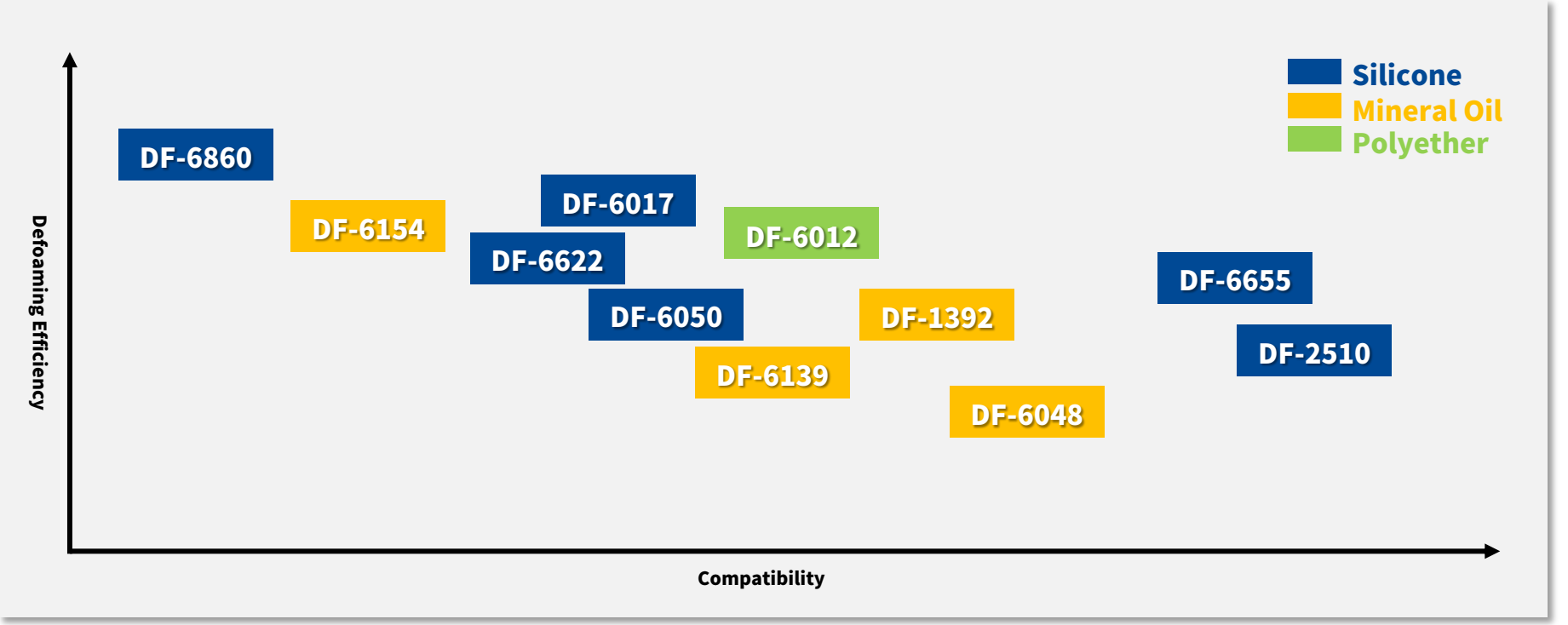
- Excellent compatibility.
- Wide applicability.
- Impact on gloss.

Silicone-Based Defoamer

- Excellent transparency.
- No impact on gloss.
- Stable performance after long-term storage at high temperature.
- Highly efficiency defoaming.

Polymer Defoamer

- Excellent compatibility.
- Good foam Inhibition.
- Moderate efficiency defoaming.



Defoamer User Guide

Mid-to-High-End Interior & Exterior Latex Paints

(Mid-Low PVC)

- Coadd™DF-6139
- Coadd™DF-1392
- Coadd™DF-6154

Cost-Effective Interior & Exterior Latex Paint

(Mid-Low PVC)

- Coadd™DF-6048
- Coadd™DF-6139

Exterior Flat Coating & Textured Finishes

- Coadd™DF-6860
- Coadd™DF-6154

Color Pastes

- Coadd™DF-6017(A)
- Coadd™DF-6622

Varnish

- Coadd™DF-2510
- Coadd™DF-6655
- Coadd™DF-6012

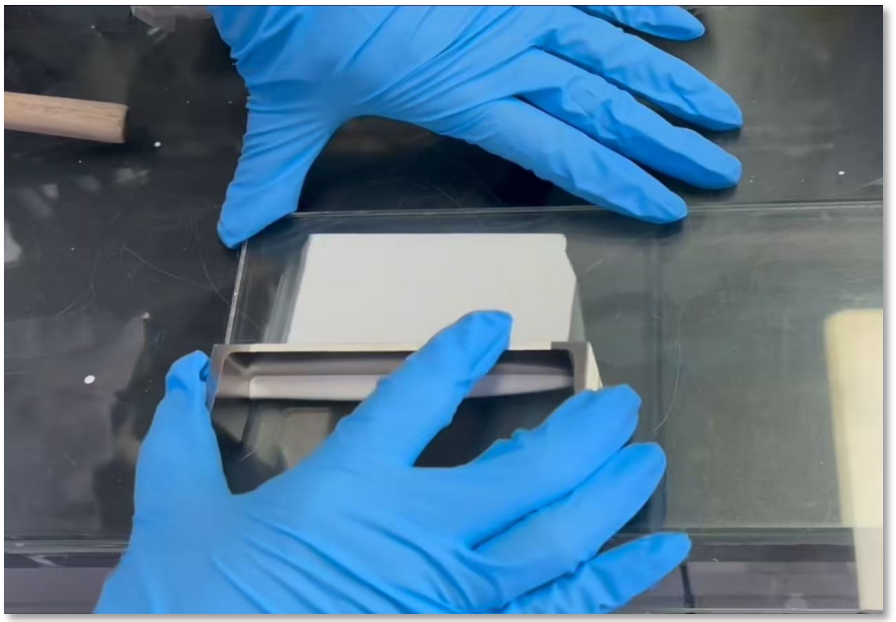
Waterproof

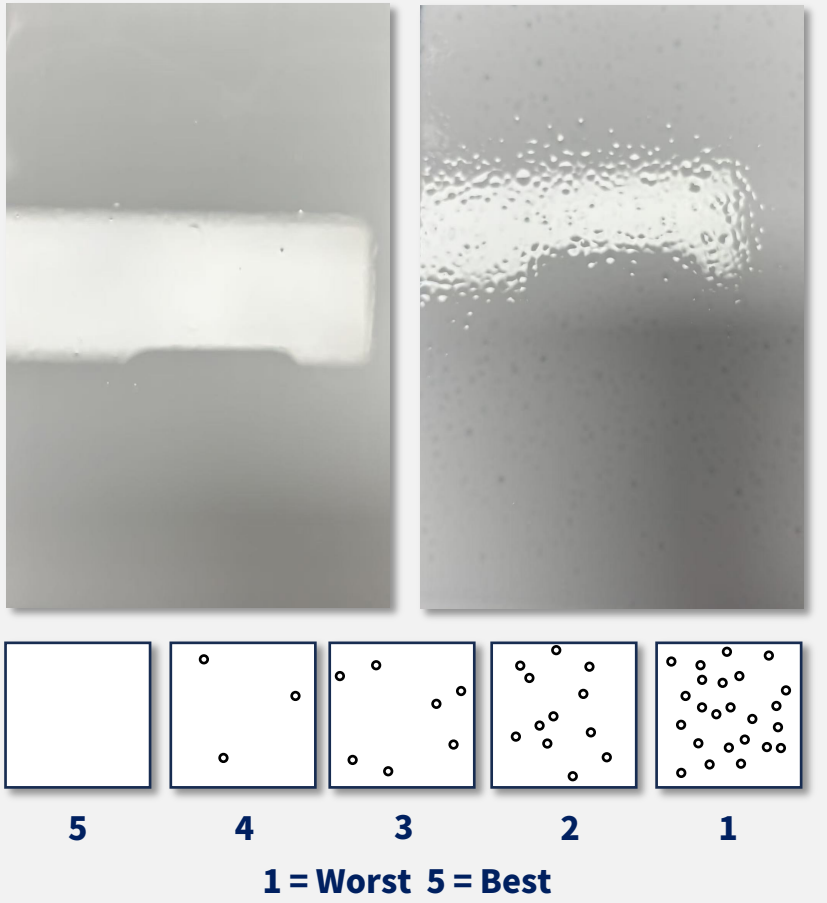
- Coadd™DF-6048
- Coadd™DF-6130

Test Methods for Defoamer

Compatibility Test

- Using a 100μm applicator,
- Draw-down on glass plate.
- with the sample diluted with 30% water.
- Evaluation of Crater/Pinhole and Gloss rating.





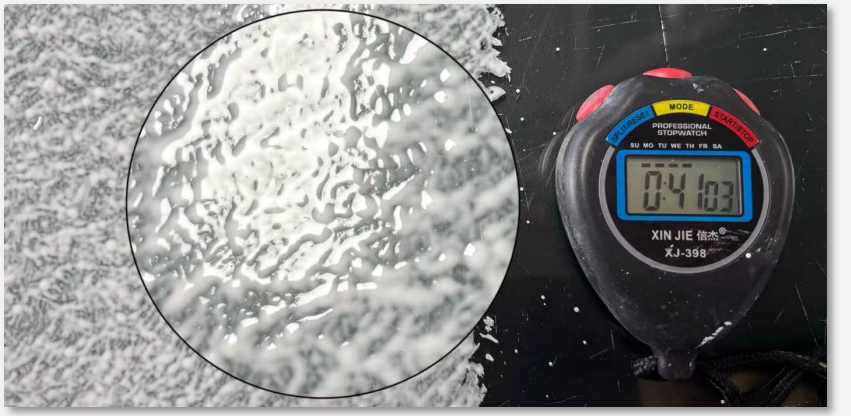
Test Methods for Defoamer

Defoaming Efficiency Test

- Using a long-nap roller.
- Apply the paint in a 「W」 pattern.
- Make four complete back-and-forth passes.
- Recording foam broken time (s).

Initial

After defoaming



Defoamer Test

Coadd™DF-6048 Low-end Interior Paint

	Testing Items	DF-6048	Competitor A	DF-6139	Competitor B
Initial	Compatibility	4	3	4	4
	Foam Inhibition	5	3	4-5	4-5
	Defoaming Capability	≈40s	≈80s	≈28s	≈45s
50℃ 30d	Compatibility	4	2	4	4
	Foam Inhibition	4-5	3	4-5	4
	Defoaming Capability	≈44s	≈81s	≈30s	≈70s

PVC Content≈ 80%
Styrene-acrylic Latex Content: 10%
Paint:DI water=100:30 (Mass Ratio)
Grade Standard：1-5，5 = Best

Defoamer Test

Coadd™DF-1392 — Low-end Interior Paint

	Testing Items	DF-1392	Competitor C	DF-6139	Competitor D
Initial	Compatibility	5	4	4	4
	Foam Inhibition	5	5	4-5	5
	Defoaming Capability	≈32s	≈55s	≈55s	≈50s
50℃ 30d	Compatibility	5	3	4	3
	Foam Inhibition	5	3	4	4
	Defoaming Capability	≈33s	≈70s	≈46s	≈52s

PVC Content≈ 75%

Low-odor Styrene-acrylic Latex Content: 10%

Paint:DI water=100:30 (Mass Ratio)

Grade Standard：1-5，5 = Best

Defoamer Test

Coadd™DF-1392 Medium-end Interior Paint

	Testing Items	DF-1392	Competitor C	DF-6139	Competitor D
Initial	Compatibility	5	3	3	3
	Foam Inhibition	5	5	4-5	5
	Defoaming Capability	≈25s	≈36s	≈30s	≈28s
50℃ 30d	Compatibility	5	3	4	3
	Foam Inhibition	5	4	4	4
	Defoaming Capability	≈28s	≈60s	≈46s	≈52s

PVC Content≈ 65%

Low-odor Styrene-acrylic Latex Content: 10%

Paint:DI water=100:30 (Mass Ratio)

Grade Standard：1-5，5 = Best

Defoamer Test

Coadd™DF-6012 — Medium-end Interior Paint

	Testing Items	DF-6012	Competitor E
Initial	Compatibility	5	4
	Foam Inhibition	5	5
	Defoaming Capability	≈35s	≈46s
50℃ 30d	Compatibility	5	4
	Foam Inhibition	5	4
	Defoaming Capability	≈40s	≈55s

PVC Content≈ 65%

Low-odor Styrene-acrylic Latex Content: 10%

Paint:DI water=100:30 (Mass Ratio)

Grade Standard：1-5，5 = Best

Defoamer Test

Coadd™DF-6154 — Medium-end Interior Paint

	Testing Items	Competitor F + Competitor F	DF-6154 + DF-6154	Competitor F + Mineral Oil Defoamer	DF-6154 + Mineral Oil Defoamer
Initial	Compatibility	4	4	5	5
	Foam Inhibition	4-5	4-5	5	5
	Defoaming Capability	≈26s	≈28s	≈6s	≈7s
50℃ 30d	Compatibility	5	3	4	3
	Foam Inhibition	5	4	4	4
	Defoaming Capability	≈35s	≈35s	≈9s	≈9s

PVC Content≈ 70%

Low-odor Styrene-acrylic Latex Content: 16%

Paint:DI water=100:30 (Mass Ratio)

Grade Standard：1-5，5 = Best

Defoamer Test

Coadd™DF-6154 — High-end Interior Paint

	Testing Items	Competitor F + Competitor F	DF-6154 + DF-6154	Competitor F + Mineral Oil Defoamer	DF-6154 + Mineral Oil Defoamer
Initial	Compatibility	4	4	5	5
	Foam Inhibition	4-5	4	5	5
	Defoaming Capability	≈45s	≈55s	≈30s	≈35s
50℃ 30d	Compatibility	4	3	5	5
	Foam Inhibition	4-5	4	5	5
	Defoaming Capability	≈46s	≈59s	≈30s	≈33s

PVC Content≈ 50%

Low-odor Styrene-acrylic Latex Content: 28%

Paint:DI water=100:30 (Mass Ratio)

Grade Standard：1-5，5 = Best

Defoamer Test

Coadd™DF-6154 Exterior Paint

	Testing Items	DF-6154	Competitor F
Initial	Compatibility	5	5
	Foam Inhibition	5	5
	Defoaming Capability	≈38s	≈36s
50℃ 30d	Compatibility	5	5
	Foam Inhibition	4-5	5
	Defoaming Capability	≈38s	≈36s

PVC Content≈ 45%

Pure Acrylic Emulsion Content: 32%

Paint:DI water=100:30 (Mass Ratio)

Grade Standard：1-5，5 = Best

Defoamer Test

Varnish

	Testing Items	0.1% Mineral Oil	0.1% DF-2510	0.1% DF-6655	0.1% DF-8106
	Transparency	—	+++	+++	+++
Initial	Compatibility	2	5	4	2
	Foam Inhibition	4	4-5	4-5	5
	Defoaming Capability	≈40s	≈38s	≈30s	≈25s
50℃ 30d	Compatibility	2	5	4	2
	Foam Inhibition	3	4	4-5	5
	Defoaming Capability	≈58s	≈40s	≈32s	≈25s

Transparency Grade Standard：— = Worst, + = Best

Compatibility Grade Standard：1-5, 5 = Best

POLYWILL
Driven By Your Challenges

Defoamer Product Line

Your Reliable Partner

POLYWILL
ADDITIVES

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