



# Paints & Coatings

INDUSTRIAL COATINGS | SOLVENTS | ARCHITECTURAL COATINGS

**A**scend Performance Materials offers a number of high performance additives for the paints and coatings industry. Ascend's portfolio of specialty chemicals includes unique amines and solvents that can help reduce VOCs and improve performance and durability.

# Isocyanate Precursor

HEXATRAN TTI

As a precursor for triaminononanetriisocyanate (TTI), Hexatran™ promotes easy workability and low viscosity at high solids. Hexatran's unique aliphatic structure provides alternate routes to carbamates and isocyanates. Urethanes produced with Hexatran TTI resist yellowing and perform well in harsh conditions, even at reduced thickness.

## KEY CHARACTERISTICS

- High boiling point
- Low vapor pressure
- Low to no smell
- Clear color
- High amine value



## HEXATRAN TTI PROPERTIES

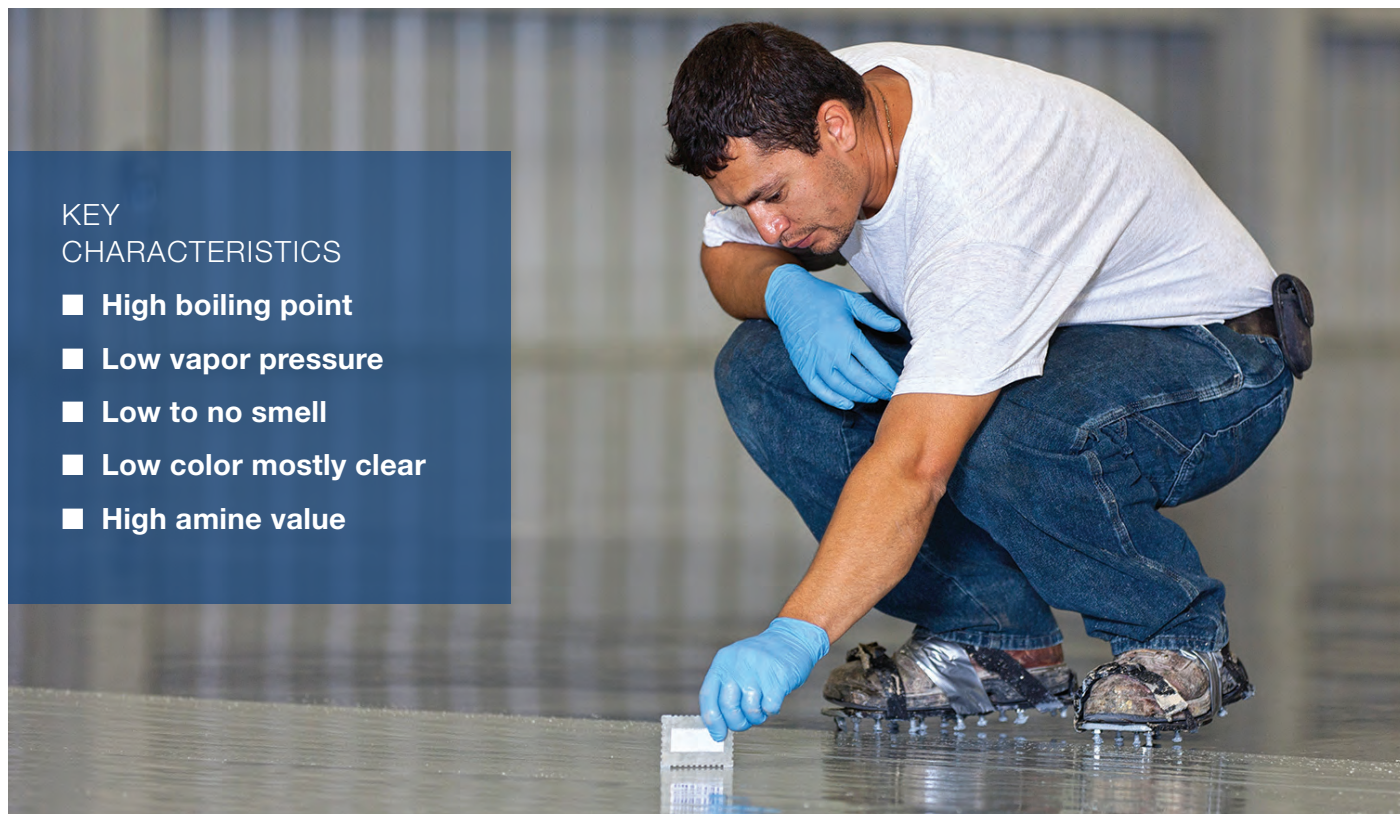
Solids (wt. %)	100
Isocyanate equivalent weight (g)	84
Viscosity at 25°C (cps)	10
Composition (monomer, %)	>99

Molecular weight (g/mol)	251
Boiling point at 1 torr	198
Vapor pressure at 20°C (torr)	0.00001

# Amines for Epoxy

HEXATRAN | FLEXATRAN-DAM

As epoxy curing agents, Ascend's trifunctional Hexatran™ and cycloaliphatic FlexaTram™-DAM provide exceptional performance, like enhanced curing time, improved flex, and chemical and heat resistance.



## KEY CHARACTERISTICS

- High boiling point
- Low vapor pressure
- Low to no smell
- Low color mostly clear
- High amine value

## CHARACTERISTICS

	Hexatran-110	Hexatran-100	Hexatran-200	FlexaTram-DAM-950
Physical form	Liquid	Liquid	Liquid	Liquid
Color	Clear	Clear	Straw	Clear
Water content (%)	<0.5	<0.5	<3.5	<0.5
Amine value (mg KOH/g; ± 50)	970	969	911	970
AHEW ±2	28	28	29	27.5
Viscosity at 25°C (cps)	14	14	21	6
Purity (as %)	≥ 99	≥ 95	≥ 84	≥ 95
Purity (as % amines)	≥ 99	≥ 95	≥ 95	≥ 95

# Solvents

FLEXATRAC-DME | FLEXATRAC-DMS | FLEXATRAC-DMG | FLEXATRAC-DMA

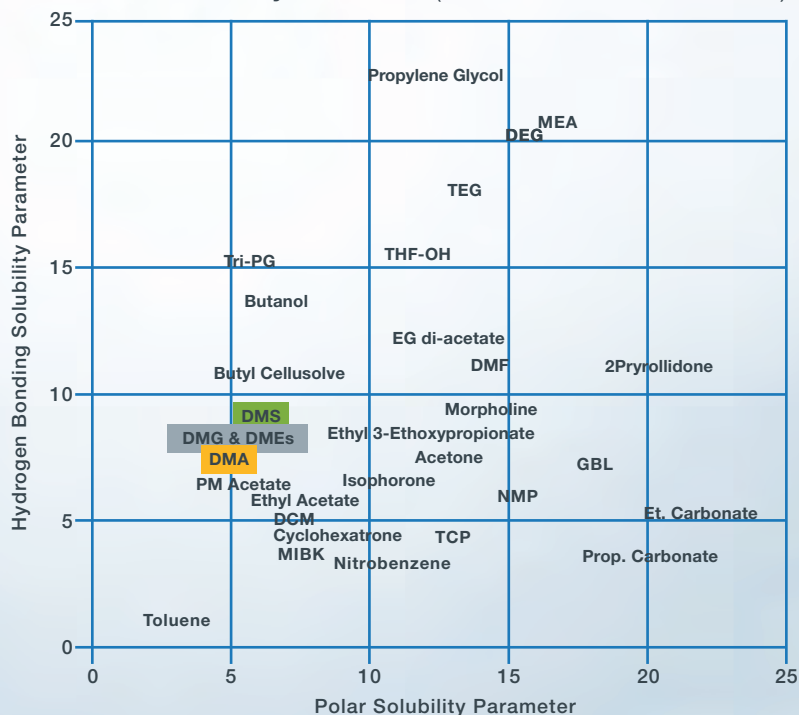
With low VOC and biodegradable solvents, Ascend's portfolio offers unique solutions across applications, including paints and coatings, inks, resins and cleaners and strippers.



## KEY CHARACTERISTICS

- Low VOC content
- Readily biodegradable
- Clear, colorless liquid
- Mild to no odor
- Excellent polymer solvency
- Miscibility with most organic solvents

Hansen Solubility Parameters (FlexaTrac vs. Common Solvents)



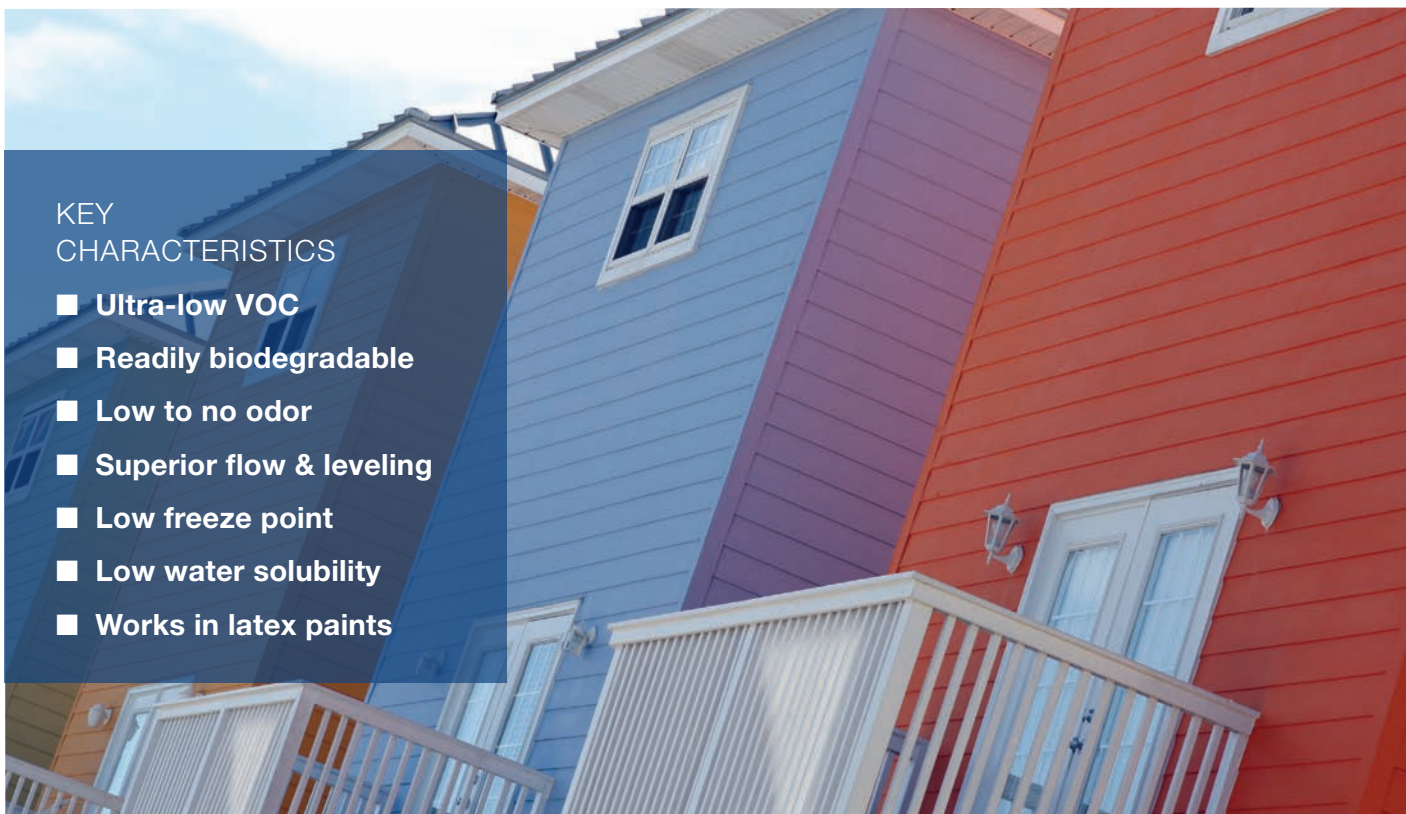
## PROPERTIES

	FlexaTrac-DME-100	FlexaTrac-DME-200	FlexaTrac-DMS-400	FlexaTrac-DMG-500	FlexaTrac-DMA-600
Dimethyl Succinate (wt. %)	15-25	1.0 max.	98.5 min.	1.0 max.	1.0 max.
Dimethyl Glutarate (wt. %)	59-73	72-76	1.0 max.	99.0 min.	1.0 max.
Dimethyl Adipate (wt. %)	10-20	23-27	1.0 max.	1.0 max.	99.0 min.
Molecular weight (g/mol)	159	163	146	160	174
Flash point (°C)	98	108	94	107	124
Freeze point (°C)	-38	-42.4	16.8	-37.5	9.4
Vapor pressure at 25°C (torr)	0.06	0.04	0.12	0.05	0.01
Boiling point (°C)	211-214	203-220	192-201	203-214	216-230

# Ultra-Low VOC Coalescing Aid

HEXTRANOL E

Ascend's Hextranol™ E is an ultra-low VOC coalescing aid for use in architectural coatings. It produces superior film integrity at lower loading levels than other coalescing aids.



## KEY CHARACTERISTICS

- Ultra-low VOC
- Readily biodegradable
- Low to no odor
- Superior flow & leveling
- Low freeze point
- Low water solubility
- Works in latex paints

## PROPERTIES

Appearance	Liquid	Viscosity at 25°C (cps)	14.85
Color	Clear	Solubility in water (wt. %)	0.04
Odor	Mild to none	Freezing point (°C)	-60
GC-VOC (%)*	<0.2	Flash point (°C)**	155
Molecular weight (g/mol)	386	Boiling point (°C)	383.6
Density at 25°C (lbs/gal)	8.24	Vapor pressure at 25°C (torr)	0.021
Specific gravity at 25°C	0.987		

\* Per ASTM D6886-12

\*\* Per Cleveland open-cup testing

# About Ascend

Ascend Performance Materials is a global leader in the production of high-quality plastics, chemicals, and fibers. As the world's largest fully integrated manufacturer of nylon 6,6 resin, our manufacturing processes are vertically integrated, ensuring the highest level of quality and economies of scale. Ascend's specialty chemicals and blends of acids, amines and esters are used in a variety of applications and industries. We offer customized solutions through formulated products and superior technical support.

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