

NIAX* Tin Catalysts

D-19 and D-22

URETHANE ADDITIVES - FLEXIBLE SLABSTOCK FOAM



Niax tin catalyst D-19 (stannous octoate) is designed for use in flexible urethane foam applications. It is a clear, colorless-to-light yellow fluid with low viscosity and excellent solubility in polyether polyols and most organic solvents. It has exceptional ability to promote the isocyanate-hydroxyl reaction in the one-shot process for flexible polyether urethane foams.

Niax tin catalyst D-22 (dibutyltin dilaurate) is used as a gel catalyst in flexible high resilience (HR) foams designed for the high-quality furniture cushion and mattress core markets, in rigid polyurethane foams and specialty applications.

Key Features and Typical Benefits

In the production of flexible polyurethane foams, Niax tin catalyst D-22 provides many cost-saving benefits to the user, including:

- excellent high-quality, uniform foam
- economical, high-speed, high-volume foam production
- highest catalyst activity
- controllable catalyst stability, resulting in minimal foam scrap losses

Typical Physical Properties

Property	Niax Tin Catalysts	
	D-19	D-22
Form	Liquid	Liquid
Appearance	Clear, light yellow	Clear, light yellow
Color, Gardner	3 max	2 max
Specific Gravity at 25°C	1.25-1.31	1.05
Stannous Content of Total Tin, %	97 min	NA
Total Tin, % by wt	28 min	18.9

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NIAX* Tin Catalysts D-19 for conventional and D-22 for high resilience slabstock foam

Formulations

The following are typical high resilience (HR) and combustion-modified high resilience (CMHR) foam formulations using Nixax tin catalyst D-22:

Table 1:

Component	Formulation, pphp HR Slab	CMHR
Polyol ⁽¹⁾	100.00	100.00
Melamine	–	35.00
Water	2.70	3.50
DEOA	1.20	1.65
Nixax catalyst C-225	0.15	0.15
Nixax silicone L-5333	0.80	0.90
Nixax tin catalyst D-22	0.20	0.15
Flame Reardant Additive	2.00	10.00
TDI 80 (Index)	(110)	(110)
Foam Property		
Density, kg/m ³	34	31

(1) Typical HR-type (reactive) polyol; solids content adjusted for obtaining specific hardness

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Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

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