

REACT-NTI

SERAVAT™

Metal Mold Release Agents



SERAVAT™ are proprietary formulations using **REACT-NTI's** patented micronized natural powders. The resulting fine particle size distribution of 10-12 microns promotes excellent release characteristics in powder metal casting applications.

Field testing of **SERAVAT™** has shown that this product reduces emissions, lowers lubricant usage, leaves no residues, has no misting properties, and improves secondary machining.

Testing Data

Metal Type	Testing Parameter	(Unit)	Lubricant		
			EBS (Acrawax)	Zinc Stearate	REACT-NTI SERAVAT™
MPIF F-0000 (A1000B) Hoeganaes Ancorsteel 1000B Base Powder + 0.75% Lubricant Sintering Conditions: Temperature 1200°F-1400°F-2350°F-2350°F 3.5" / min. 97% N ₂ / 3% H ₂	Hall Apparent Density	(g/cc)	2.99	3.23	2.99
	Hall Flow Rate	(sec./50g)	28	28	29
	Green Density @50 TSI	(sec./50g)	7.19	7.18	7.14
	Green Strength @50 TSI	(psi)	2107	1908	3642
	Peak Ejection Pressure @50 TSI	(lbs.)	3100	3400	3100
	Sintered Density @50 TSI	(g/cc)	7.17	7.14	7.14
	Sintered TRS	(ksi)	85.0	74.0	90.0
	Sintered Apparent Hardness	(HRS)	71	69	71
	Sintered DC% from Die Size	(ksi)	0.23	0.28	0.09
Stainless Steel	Green Strength @50 TSI	(psi)	600	1200	4000

Compared to EBS and Zinc Stearate in the green state, **SERAVAT™** shows good compressibility, excellent green strength, typical hall apparent density, good hall flow, and adequate peak injection pressure. In the sintered state, **SERAVAT™** shows excellent TRS, good hardness, and low dimensional change.

Attributes

•	Reduces Emissions.
•	Improves Secondary Machining.
•	No Misting.

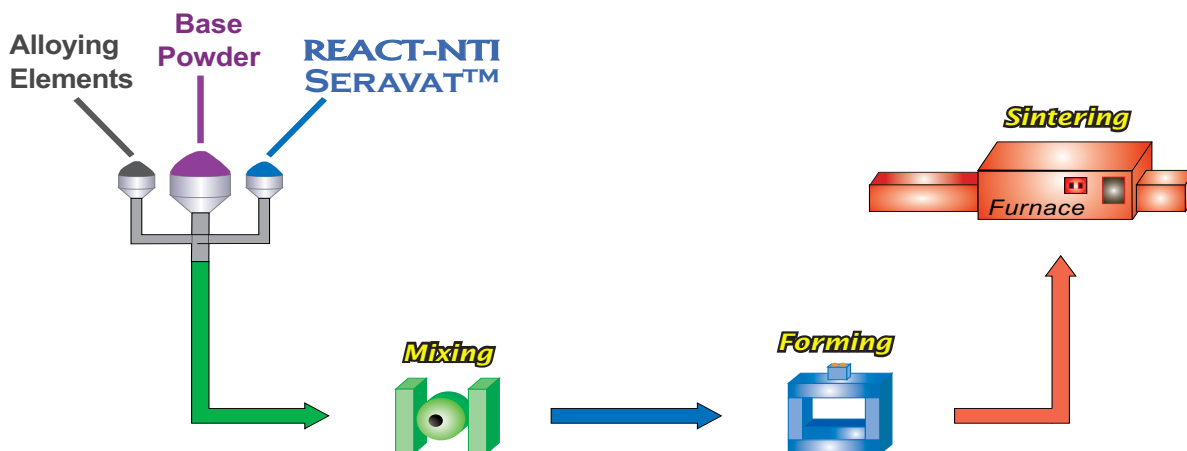
Chemical & Physical Data

Appearance	Powder
Solids (active)	100%
Color	Off White to Pale Yellow
Melting Range	280°F - 600°F
Particle Size	10-12 Microns

General Blending Procedure for Cotton/Polymer and Starch Polymer Mixes

Laboratory Mixes 1-25 lbs.		Large Mixes 100-40,000 lbs.	
1	Weigh out components. (Iron, Lube, Graphite, Copper, etc.)	1	Weigh out components. (Iron, Lube, Graphite, Copper, etc.)
2	Put all components in jar, container, blender, etc.	2	Put one half of the required iron and all of the lube in the blender.
3	Blend for 5 minutes.	3	Blend for 10 minutes.
4	Remove lid(s) and clean around edges.	4	Look for evidence of agglomerations, if found, screen material US 60Mesh.
5	Replace lid(s), and blend for an additional 20 minutes.	5	Place screened material and remainder of components in blender.
6	Discharge blender.	6	Blend for an additional 20 minutes.
7	Look for evidence of agglomerations, if found, screen material US 60Mesh.	7	Discharge blender.

These are general guidelines based on experience in standard double cone blenders. Results may be affected by blending speed, blend size in relation to blender size, etc. Screening should be done under conditions that would optimize only the removal of agglomerations.



Health and Safety Data

- Before using this product, please consult our Material Safety Data Sheet for information on safe handling.



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