

Rare earth carbonate concentrate

Denomination	Content, %
TREO	min 45
CeO ₂ / TREO	min 50
La ₂ O ₃ / TREO	24.5-30
Nd ₂ O ₃ / TREO	11.5-15
Pr ₆ O ₁₁ / TREO	4.0-0 6.5
CaO	max 0.4
Fe ₂ O ₃	max 0.03
BaO	max 0.1
SrO	max 0.3
SO ₄ ²⁻	max 0.3

The specification above is for standard product of AS Silmet. All materials can also be produced according to the customer's specifications.

Rare earth oxide concentrate

Denomination	Content, %	
	Grade A	Grade M
TREO	min 98	min 80
CeO ₂ / TREO	min 50	min 53
La ₂ O ₃ / TREO	24.5-30.0	--
Nd ₂ O ₃ / TREO	11.5-15.0	max 15
Pr ₆ O ₁₁ / TREO	4.0-6.5	5.5±1.5
F	--	max 0.1
P	--	max 0.05
SO ₄	max 0.5	--
Total S	--	max 0.06
Ca	max 0.4	max 0.3
Sr	max 0.3	--
Na	--	max 0.04
Ba	max 0.1	max 0.06
Cl	--	max 0.2
MgO	--	max 0.01
Fe ₂ O ₃	max 0.03	max 0.015
Al	--	max 0.01
Zn	--	max 0.01
Pb	--	max 0.01
As	--	max 0.001
LOI	max 2	13±5
Screen	--	max 20 mesh

The specification above is for standard product of AS Silmet. All materials can also be produced according to the customer's specifications.

Cerium hydroxide (IV)

Denomination	Content, %
TREO	50 - 60
CeO ₂ /TREO	min 99.5
CeIV/Ce total	min 99
Fe ₂ O ₃ /TREO	max 0.01
CaO/TREO	max 0.03
SiO ₂ /TREO	max 0.01
P ₂ O ₅ /TREO	max 0.05
Soluble in HNO ₃	soluble

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Cerium carbonate 45

Denomination	Content, %		
	Grade 98	Grade 98,5	Grade 99
TREO	min 45	min 45	min 45
CeO ₂ /TREO	min 98	min 98.5	min 99
(La ₂ O ₃ + Pr ₆ O ₁₁ +Nd ₂ O ₃)/TREO	max 2	max 1.5	max 1
NO ₃	max 1	max 1	max 1

The specification above is for standard product of AS Silmet. All materials can also be produced according to the customer's specifications.

Cerium carbonate 60

Denomination	Content, %		
	Grade 98	Grade 98,5	Grade 99
TREO	55 - 65	55 - 65	55 - 65
CeO ₂ /TREO	min 98	min 98.5	min 99
(La ₂ O ₃ + Pr ₆ O ₁₁ +Nd ₂ O ₃)/TREO	max 2	max 1.5	max 1
NO ₃	max 1	max 1	max 1

The specification above is for standard product of AS Silmet. All materials can also be produced according to the customer's specifications.

Cerium oxide

Denomination	Content, %				
	Grade 94	Grade 95	Grade 96	Grade 98	Grade 99
TREO	min 98	min 99	min 99	min 99	min 99
CeO ₂ /TREO	min 94	min 95	min 96	min 98	min 99
(La ₂ O ₃ + Pr ₆ O ₁₁ +Nd ₂ O ₃)/TREO	max 6	max 5	max 4	max 2	max 1
SiO ₂	max 0.05	max 0.05	max 0.05	max 0.05	max 0.05
Fe ₂ O ₃	max 0.05	max 0.05	max 0.05	max 0.05	max 0.05
P ₂ O ₅	max 0.1	max 0.1	max 0.1	max 0.1	max 0.1
LOI	max 1.5	max 1	max 1	max 1	max 1

The specification above is for standard product of AS Silmet. All materials can also be produced according to the customer's specifications.

Neodymium carbonate

Denomination	Content, %	
	Grade A	Grade B
TREO	min 30	min 60
Nd ₂ O ₃ /TREO	min 99	min 99
Pr ₆ O ₁₁ /TREO	max 0.6	max 0.6
Other REO/TREO total	max 0.4	max 0.4
Other REO/TREO each	max 0.1	max 0.1
SiO ₂	max 0.05	max 0.03
Fe ₂ O ₃	max 0.05	max 0.05
Al ₂ O ₃	max 0.01	max 0.01
Ni	max 0.01	max 0.01
NO ₃	max 5	max 1

The specification above is for standard product of AS Silmet. All materials can also be produced according to the customer's specifications.

Neodymium oxide

Denomination	Content, %	
	Grade A	Grade B
TREO	min 99	min 99.6
Nd ₂ O ₃ /TREO	min 99	--
Pr ₆ O ₁₁ /TREO		max 1
La ₂ O ₃ /TREO	--	max 0.05
CeO ₂ /TREO	--	max 0.05
Sm ₂ O ₃ /TREO	--	max 0.05
Other REO/TREO total	max 1	--
Mg	max 0.02	max 0.02
Al	max 0.05	max 0.05
Si	max 0.05	max 0.05
Fe	max 0.01	max 0.1
Ca	max 0.05	max 0.02
Cr	max 0.015	max 0.01
Ni	max 0.01	max 0.01
LOI at 900° C	max 0.5	max 0.3

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