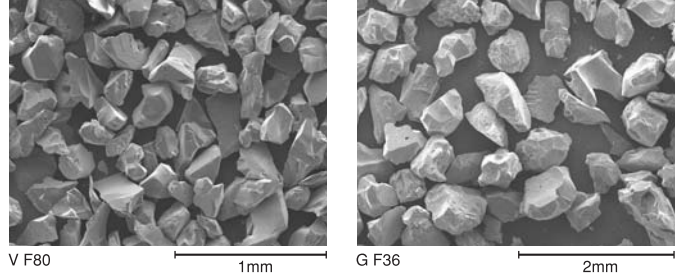


White Fused Alumina for Grinding NIKKEI RUNDUM V/G

NIKKEI RUNDUM V/G has excellent strength and toughness which allows it to be used in a wide range of applications, from general to precision grinding. V is suitable for vitrified grinding wheels and G is often used for resinoid grinding wheels.



Typical Properties

	Specific Gravity	Bulk Density (g/cm ³)	Toughness (%)	Magnetic Substances (ppm)	pH
V (F80)	3.96	1.75	60	1	7.6
G (F36)	3.96	1.78	33	6	8.7

Grain Size	Chemical Composition (%)	Al ₂ O ₃		Na ₂ O		Fe ₂ O ₃		SiO ₂		LOI	
		Std. Spec.	Typical	Std. Spec.	Typical	Std. Spec.	Typical	Std. Spec.	Typical	Std. Spec.	Typical
V	F24~F36	≥99.5	99.8	≤0.13	0.09	≤0.05	0.01	≤0.12	0.09	≤0.05	0.01
	F46~F80	≥99.5	99.8	≤0.13	0.09	≤0.05	0.02	≤0.12	0.09	≤0.05	0.01
	F90~F120	≥99.5	99.7	≤0.17	0.13	≤0.05	0.03	≤0.13	0.09	≤0.05	0.01
	F150~F220	≥99.0	99.6	≤0.30	0.26	≤0.05	0.03	≤0.15	0.11	≤0.05	0.01
G	F10~F20	≥99.5	99.8	≤0.30	0.15	≤0.05	0.01	≤0.10	0.03	≤0.05	0.01
	F24~F36	≥99.5	99.8	≤0.30	0.16	≤0.05	0.01	≤0.10	0.03	≤0.05	0.01
	F46~F60	≥99.5	99.7	≤0.30	0.21	≤0.05	0.02	≤0.10	0.03	≤0.05	0.01

Applications

V: Vitrified grinding wheels, Setter, Thermal spray material, Casting sand, Fillers

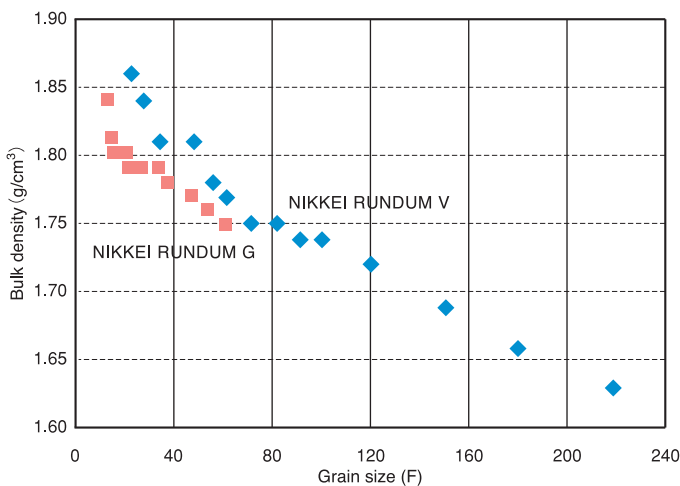
G: Resinoid grinding wheels, Blast, Non-slip materials, Abrasive cloth/paper

Packing

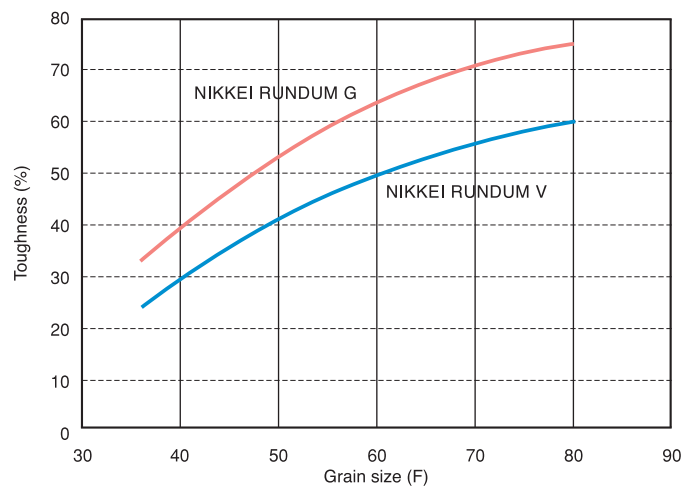
Flexible container bag (500kg and 1000kg)

Paper bag (20kg)

Bulk Density



Toughness



Grain Size	Grain Size Distribution															Bulk Density (g/cm ³) Std.Spec.	Typical
	Sieve Mesh Size (μm)	Std. Spec. (%) (Plus sieve)	Sieve Mesh Size (μm)	Std. Spec. (%)	Typical (%)	Sieve Mesh Size (μm)	Std. Spec. (%)	Typical (%)	Sieve Mesh Size (μm)	Std. Spec. (%)	Typical (%)	Sieve Mesh Size (μm)	Std. Spec. (%) (Minus sieve)	Typical (%)			
V	F24	1180	0	1180~850	≤25	15	850~710	≥45	62	850~600	≥65	81	500	≤3	0	1.80~1.94	1.86
	F30	1000	0	1000~710	≤25	13	710~600	≥45	60	710~500	≥65	85	425	≤3	0	1.76~1.90	1.84
	F36	850	0	850~600	≤25	7	600~500	≥45	57	600~425	≥65	88	355	≤3	0	1.72~1.86	1.81
	F46	600	0	600~425	≤30	20	425~355	≥40	48	425~300	≥65	76	250	≤3	0	1.72~1.86	1.81
	F54	500	0	500~355	≤30	7	355~300	≥40	50	355~250	≥65	88	212	≤3	1	1.71~1.85	1.78
	F60	425	0	425~300	≤30	9	300~250	≥40	54	300~212	≥65	88	180	≤3	0	1.71~1.85	1.77
	F70	355	0	355~250	≤25	20	250~212	≥40	50	250~180	≥65	75	150	≤3	1	1.66~1.80	1.75
	F80	300	0	300~212	≤25	19	212~180	≥40	46	212~150	≥65	77	125	≤3	0	1.66~1.80	1.75
	F90	250	0	250~180	≤20	6	180~150	≥40	45	180~125	≥65	91	106	≤3	1	1.60~1.80	1.74
	F100	212	0	212~150	≤20	9	150~125	≥40	58	150~106	≥65	86	75	≤3	0	1.60~1.80	1.74
	F120	180	0	180~125	≤20	12	125~106	≥40	42	125~90	≥65	86	63	≤3	0	1.60~1.80	1.72
	F150	150	0	150~106	≤15	4	106~75	≥40	57	106~63	≥65	88	45	≤3	1	1.55~1.75	1.69
	F180	125	0	125~90	≤15	3	90~63	≥40	48	90~53	≥65	72	53	≤35	25	1.55~1.75	1.66
	F220	106	0	106~75	≤15	2	75~53	≥40	48	75~45	≥60	77	45	≤40	21	1.55~1.75	1.63
G	F10	3350	0	3350~2360	≤20	17	2360~2000	≥45	55	2360~1700	≥70	79	1400	≤3	0	1.75~1.91	1.84
	F12	2800	0	2800~2000	≤20	3	2000~1700	≥45	50	2000~1400	≥70	94	1180	≤3	0	1.75~1.91	1.81
	F14	2360	0	2360~1700	≤20	17	1700~1400	≥45	68	1700~1180	≥70	82	1000	≤3	0	1.75~1.91	1.80
	F16	2000	0	2000~1400	≤20	5	1400~1180	≥45	55	1400~1000	≥70	93	850	≤3	0	1.75~1.91	1.80
	F20	1700	0	1700~1180	≤20	4	1180~1000	≥45	54	1180~850	≥70	92	710	≤3	0	1.75~1.91	1.79
	F24	1180	0	1180~850	≤25	16	850~710	≥45	62	850~600	≥65	81	500	≤3	0	1.74~1.90	1.79
	F30	1000	0	1000~710	≤25	12	710~600	≥45	59	710~500	≥65	86	425	≤3	0	1.73~1.89	1.79
	F36	850	0	850~600	≤25	6	600~500	≥45	54	600~425	≥65	82	355	≤3	0	1.72~1.88	1.78
F46	600	0	600~425	≤30	11	425~355	≥40	49	425~300	≥65	87	250	≤3	0	1.71~1.87	1.77	
F60	425	0	425~300	≤30	23	300~250	≥40	55	300~212	≥65	75	180	≤3	0	1.71~1.83	1.75	

* Other grain sizes are available upon request

Methods of Product Analysis

		ALUMINUM HYDROXIDE	ALUMINA	WHITE FUSED ALUMINA	
Chemical Analysis	H ₂ O (%)	Loss of mass by drying at 110±5°C (JIS R 9301-3-1, 1999)		Loss of mass by drying at 300±10°C (JIS R 9301-3-1, 1999)	
	LOI (%)	Loss of mass by ignition at 1100±25°C (JIS R 9301-3-2, 1999)			
	SiO ₂ (%)	Molybdenum blue colorimetry or ICP emission spectroscopy (JIS R 9301-3-5, 1999)*			
	Fe ₂ O ₃ (%)	1,10-phenanthroline colorimetry or ICP emission spectroscopy (JIS R 9301-3-6, 1999)*			
	Na ₂ O (%)	Lithium carbonate/Boric acid melting - Atomic absorption spectroscopy (JIS R 9301-3-9, 1999)*			
	f-Na ₂ O (%)	Hot-water elution - Atomic absorption spectroscopy	-		-
	Al ₂ O ₃ , Al(OH) (%)	100-(SiO ₂ +Fe ₂ O ₃ +Na ₂ O)		100-(SiO ₂ +Fe ₂ O ₃ +Na ₂ O+LOI)	
Physical Analysis	Ave. Particle Size (μm)	Laser diffraction scattering** or Sieve analysis		Sieve analysis	
	Bulk Density (g/cm ³)	Untamped density and tamped density (JIS R 9301-2-3, 1999)			
	Bulk Density (Pressed) (g/cm ³)	-	Press forming - Bulk density measurement		-
	Angle of Repose (deg)	Gravity method (JIS R 9301-2-2, 1999)			-
	BET Specific Surface Area (m ² /g)	Nitrogen gas adsorption			-
	Oil Absorption (mL/100g)	DOP spatula kneading method (JIS K 5101-13-1, 2004)		-	-
	Water Absorption (mL/100g)	-	Distilled water spatula kneading method (JIS K 5101-13-1, 2004)		-
	pH	Water extraction - Glass electrode measurement (JIS Z 8802, 1984)		-	Water extraction - Glass electrode measurement (JIS Z 8802, 1984)
	Whiteness (%)	Spectrocolorimeter			-
	Electric Conductivity (mS/m)	Water extraction - Electric conductivity measurement		-	-
	α-Crystal Size (μm)	-	Measurement by electron microscope		-
	Green Density (g/cm ³)	-	Press forming (with flux) - Bulk density measurement		-
	Fired Density (g/cm ³)	-	Press forming (with flux) - Sintering - Density measurement by water displacement		-
	Toughness (%)	-	-	Ball mill test (JIS R 6128, 1975 (abolished in 1999))	
Specific Gravity	-	-	Suspension method (JIS R 6004, 2005)		
Magnetic Substances (ppm)	-	-	Magnetic collection		
Porosity (%)	-	-	Water absorption method (JIS C 2141, 1992)		

*Fluorescent X-ray method may be used instead. **Microtrac particle size distribution analyzer 9320HRA