

CATALOG



2021 - I

Carbon Nano-Powders

#	Product	Description	Reference	Weight	Packing	Price, \$
1	RayND Code: 100	Nanodiamond powder of laser synthesis, customized surface functionalization	Average grain size: 4.0-4.5 nm; ash residue: <0.02 wt.%. The price is planned to drop.	2 g	Glass vial	50
				10 g	Plastic bottle	150
				100 g	Plastic bottle	1400
2	RayND-AL Code: 104	Nanodiamond powder of laser synthesis, hydroxylated & nitrogenized; metal free; for biomed research	Hydrophilic & Lyophilic, PL; average grain size: 4.0-4.5 nm; ash residue: <0.02 wt.%	2 g	Glass vial	50
				10 g	Plastic bottle	200
				100 g	Plastic bottle	2000
3	RayND-M Code: 105	Nanodiamond powder of laser synthesis, modified, metal free, ferro-magnetic (unknown nature); for scientific research	Magnetic; metal-free, PL; average grain size: 4.0-4.5 nm; ash residue: <0.1 wt.%	1 g	Glass vial	500
4	RT-DND Code: 110	Nanodiamond powder of detonation synthesis, purified, graphite & metal free, non-modified; for various applications	Polydispersed; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	50
				100 g	Plastic bottle	200
				500 g	Plastic jar	800
5	RT-DND-A Code: 111	Detonation nanodiamond powder, purified, nitrogenized; for compatible polymer compounds	Hydrophobic, lyophilic; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	50
				100 g	Plastic bottle	300
				500 g	Plastic jar	1300
6	RT-DND-B Code: 112	Detonation nanodiamond powder, purified, eliminated radicals; for metal & ceramic composites, dry lubrication, nuclear app.	Hydrophobic, lyophobic; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	50
				100 g	Plastic bottle	300
				500 g	Plastic jar	1200
7	RT-DND-L Code: 113	Detonation nanodiamond powder, purified, hydroxylated; for polishing, coolants, compatible polymers (PE)	Hydrophilic, lyophobic; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	50
				100 g	Plastic bottle	300
				500 g	Plastic jar	1200
8	RT-DND-LN Code: 114	Detonation nanodiamond powder, purified, nitrogenized; for IPA, NMP, Cy, DMSO & acetone colloids & compatible rubbers	Hydrophobic, lyophilic; high PL; average grain size: 3.5-6.0 nm, ash residue: <0.1 wt.%	10 g	Plastic vial	70
				100 g	Plastic bottle	500
				500 g	Plastic jar	1800
9	RT-DND-BM Code: 115	Detonation nanodiamond powder, purified, ethylated; for compatible paints, lacquers, inks, synth. oils, polishes, slurries	Hydrophobic, lyophilic; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	70
				100 g	Plastic bottle	250
				500 g	Plastic jar	1100
10	RT-DND-Fe Code: 116	Detonation nanodiamond powder, purified, Fe-doped, for optic coatings & magnetic nano-fluids, bio-research	Ferro-magnetic; high PL; average grain size: 3.5-6.0 nm, ash residue: <0.8 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	500
				500 g	Plastic jar	2000
11	RT-DND-EN Code: 117	Detonation nanodiamond powder, purified, nitrogenized; for stable solvent-based polymer additives, H ₂ O, DMSO, Cy, IPA, NMP	Hydrophilic, lyophilic; high PL; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	70
				100 g	Plastic bottle	450
				500 g	Plastic jar	1800
12	RT-DND-EI Code: 118	Detonation nanodiamond powder, purified, alkylated & nitrogenized; for sintering and compatible polymers (PA)	Hydrophobic, lyophobic; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	60
				100 g	Plastic bottle	350
				500 g	Plastic jar	1400
13	RT-DND-NH Code: 119	Detonation nanodiamond powder, purified, nitrogenized & hydroxylated; for coolants, inks & wet polymer additives	Hydrophilic, lyophilic, high PL; average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	70
				100 g	Plastic bottle	450
				500 g	Plastic jar	1800
14	RT-HPHT-L Code: 133	Crashed High Pressure High Temperature nanodiamond powder, purified, hydroxylated; for polishing slurries, pastes & pads	Hydrophilic, lyophobic; average grain size: 40-50 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	50
				100 g	Plastic bottle	300
				500 g	Plastic jar	1200
15	RT-HPHT-AL Code: 134	Crashed High Pressure High Temperature nanodiamond powder, purified, modified, hydroxylated & nitrogenized, for plating	Hydrophilic, lyophilic; average grain size: 40-50 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	70
				100 g	Plastic bottle	500
				500 g	Plastic jar	2000
16	RT-CNT Code: 141	Carbon nanotubes hydroxylated; ; for water soluble polymer resins & other composite materials	Hydrophilic, lyophobic; contains 75 wt.% single wall CNT	10 g	Plastic vial	100
				100 g	Plastic bottle	700
				500 g	Plastic jar	3000

In addition, RAY provides carbon nanoparticles with [customized surface chemistry: nanodiamonds, CNT and graphene](#).

Carbon Nanofluids

#	Product	Description	Reference	Volume	Packing	Price, \$
17	RayND-SP Code: 201	1 wt. % disaggregated nanodiamond water colloid (carboxylated RayND), pH: 3.5-4.5; for biomed R&D	Disaggregated particles, highly dispersed & stable; average grain size: 4.0-4.5 nm	100 ml	Glass vial	80
18	RayND-W-4 Code: 202	4 wt. % disaggregated nanodiamond water colloid (nitrogenized & hydroxylated RayND), pH: 3.5-4.5; for biomed R&D	Highly dispersed & stable; average grain size: 4.0-4.5 nm; high PL	30 ml	Glass vial	100
				200 ml	Plastic bottle	450
				1 L	Plastic bottle	2000
19	RayND-S-2 Code: 203	2 wt.% nanodiamond saline colloid (RayND with carboxyl functional groups); for biomed R&D	Highly dispersed & stable; average grain size: 4.0-4.5 nm	30 ml	Glass vial	80
				200 ml	Plastic bottle	250
				1 L	Plastic bottle	1000
20	Ray-DMSO-3 Code: 204	3 wt. % nanodiamond Dimethyl sulfoxide colloid (RayND), for cosmetics, biomed R&D, CVD diamond growth, fuel cells	Highly dispersed & stable; average grain size: 4.0-4.5 nm; high PL	30 ml	2 glass vials	100
				200 ml	Plastic bottle	350
				1 L	Plastic bottle	1500
21	Ray-IPA-5 Code: 205	5 wt. % nanodiamond isopropyl alcohol colloid (RayND), highly dispersed, for seeding in CVD diamond growth	Highly dispersed & stable; average grain size: 4.0-4.5 nm; high PL	30 ml	2 glass vials	150
				200 ml	Plastic bottle	500
				1 L	Plastic bottle	2400
22	RT-DND-SP Code: 211	1 wt. % nanodiamond water colloid (disaggregated RT-DND), pH=3.5-5.5; for polishing, inks, water soluble polymer resins	Disaggregated particles, highly dispersed & stable; average grain size: 3.5-6.0 nm	30 ml	Glass vial	60
				200 ml	Plastic bottle	250
				1 L	Plastic bottle	750
23	RT-W-3A Code: 213	3 wt. % nitrogenized nanodiamond water colloid; for water soluble polymers, inks, coolants, sensors	Highly dispersed & stable; high PL; pH of wide range; average grain size: 3.5-6.0 nm	30 ml	Glass vial	50
				1 L	Plastic bottle	400
				5 L	HDPE jerrican	1600
24	RT-Ac-4 Code: 214	4 wt. % nanodiamond acetone colloid, for HIPS & ABS rubbers and other acetone soluble polymers	Highly dispersed & stable; average grain size: 3.5-6.0 nm; high PL	30 ml	2 glass vials	50
				1 L	HDPE bottle	400
				5 L	HDPE jerrican	1600
25	RT-NMP-5 Code: 216	5 wt. % nanodiamond N-methyl-2-pyrrolidone colloid; additive for textiles, resins, plastics, inks, sensors	Highly dispersed & stable; average grain size: 3.5-6.0 nm; high PL	30 ml	2 glass vials	50
				1 L	HDPE bottle	500
				5 L	HDPE jerrican	2200
26	RT-T-7 Code: 217	7 wt. % nanodiamond toluene colloid; for paints, lacquers, adhesives, rubbers, fuels, explosives	Highly dispersed & stable; average grain size: 3.5-6.0 nm; high PL	30 ml	2 glass vials	70
				1 liter	Glass bottle	700
				5 liters	HDPE jerrican	3000
27	RT-ETA-5 Code: 218	5 wt.% nanodiamond ethanolamine colloid for gas stream scrubbing	Highly dispersed & stable; average grain size: 3.5-6.0 nm	30 ml	2 glass vials	50
				1 liter	Glass bottle	500
				5 liters	HDPE jerrican	2200
28	RT-Xy-7 Code: 219	7 wt. % nanodiamond xylene colloid; for PET products, inks, rubbers, glues, paints, for wafers & PCB cleaning agents	Highly dispersed & stable; average grain size: 3.5-6.0 nm	30 ml	2 glass vials	70
				1 L	HDPE bottle	700
				5 L	HDPE jerrican	3000
29	RT-Cy-7 Code: 220	7 wt. % nanodiamond cyclohexane colloid, additive to anionic elastomers, CPL & nylon	Highly dispersed & stable; average grain size: 3.5-6.0 nm	30 ml	2 glass vials	70
				1 L	HDPE bottle	700
				5 L	HDPE jerrican	3000
30	RT-DMF-7 Code: 221	7 wt. % nanodiamond dimethylformamide colloid, for acrylic fibers, plastics, synthetic leathers, glues	Highly dispersed & stable; average grain size: 3.5-6.0 nm	30 ml	2 glass vials	70
				1 L	HDPE bottle	700
				5 L	HDPE jerrican	3000
31	RT-Bu-10 Code: 222	10 wt. % nanodiamond 2-Butoxyethanol colloid; for varnishes, herbicides, latex paints, enamels	Highly dispersed & stable; average grain size: 3.5-6.0 nm	30 ml	2 glass vials	50
				1 L	HDPE bottle	300
				5 L	HDPE jerrican	1400
32	RT-PEO-1.5 Code: 223	1.5 wt. % nanodiamond polyester oil colloid; additive to lubricants (lapping / finishing / running-in), compressor oils	Based on BVA-68. Highly dispersed & stable; average grain size: 3.5-6.0 nm	200 ml	Plastic bottle	50
				1 L	Plastic bottle	130
				5 L	HDPE jerrican	600
33	RT-DMSO-3 Code: 224	3 wt. % nanodiamond Dimethyl sulfoxide colloid; additive to lubricants for lapping, finishing, running-in	Highly dispersed & stable; average grain size: 3.5-6.0 nm	30 ml	2 glass vials	50
				1 L	Plastic bottle	300
				5 L	HDPE jerrican	1400

34	RT-D50-W5 Code: 231	5 wt.% nanodiamond water colloid (hydroxylated HPHT-ND); for lapping, inner surfaces flow polishing, electroplating	Average grain size: 40-50 nm. Sonication before handling is recommended.	100 ml	Glass vial	50
				1 L	Plastic bottle	250
				5 L	HDPE jerrican	1200
35	RT-D50-W3A Code: 232	3 wt.% nanodiamond water colloid (aminated HPHT-ND); for coatings, polishing, lapping	Highly dispersed & stable; average grain size: 40-50 nm; high PL	100 ml	Plastic bottle	50
				1 l	Plastic bottle	300
				5 liter	HDPE jerrican	1500
36	RT-CNT-1 Code: 251	1 wt.% CNT nanodiamond water-based colloid, for new composite materials	Highly dispersed & stable; contains single wall CNT 0.75 wt.%	100 ml	Plastic bottle	100
				1 L	Plastic bottle	500
				5 L	HDPE jerrican	2000

All suspensions are prepared without surfactants.

RAY offers customized carbon nanofluids with high sedimentation stability containing diamond, CNT, graphene and fullerene nanoparticles based on various solvents.

RAY also offers process development for surface modification & dispersing nanoparticles within diverse solvents & composites.

Nanodiamond Products for Industry						
#	Product	Description	Reference	Weight	Packing	Price, \$
37	RT-W-10 Code: 212	10 wt. % nanodiamond gel; for lapping, finishing, running-in, cooling, ultra-sonic cleaning, pretreatment for PVD	Water-based, stable; average grain size: 3.5-6.0 nm; dilute for handling	50 ml	Plastic bottle	50
				1 L	Plastic bottle	280
				5 L	HDPE jerrican	1200
38	RT-Lub Code: 312	3 wt.% nanodiamond additive to synthetic oils; recommended dilution: finishing: 1/40, running-in: 1/70, motor oils: 1/100	Based on BVA-68; highly dispersed & stable; average grain size: 3.5-6.0 nm	100 ml	Plastic vial	50
				1 L	Plastic bottle	360
				5 liters	HDPE jerrican	1500
39	RT-Lap Code: 313	10 wt. % nanodiamond organic-based grease for fine polishing of diamonds, CVD diamond films, optic crystals & ceramics	Alkanolamine-based; average grain size: 3.5-6.0 nm; washed of with aglycerol + water	50 ml	Plastic jar	50
				500 ml	Plastic jar	200
				5 l	Plastic jar	1500
40	RT-Lap-A Code: 314	5 wt. % nanodiamond antiwear grease for lapping, finishing, running-in of gears, engines, generators and precision parts	Polyol-based, stable; average grain size: 3.5-6.0 nm; washed off with water	50 ml	Plastic jar	50
				500 ml	Plastic jar	100
				5 l	Plastic jar	850
41	ND-Galvano Code: 317	20 wt.% nanodiamond water slurry, additive to electrolytes in galvanic coatings for improving wear & corrosion resistance	Water-based; Recommended dilution 1/40, or 5-6 g nanodiamonds in electrolyte	1 L	Plastic bottle	600
				5 L	HDPE jerrican	2800
				25 L	5 HDPE jers	13000
42	ND-Depo Code: 319	Nanodiamond additive to electrolytes for galvanic & electroless coatings improving wear & corrosion resistance of coatings	Functionalized powder; recommended ratio 5-6 g in 1 liter electrolyte	500 g	Plastic jar	1500
				2 kg	4 plastic jars	4800
				10 kg	Plastic basket	20000
43	ND-EP Code: 411	Nanodiamond additive to phenol & other compatible epoxy resins such as EP 502	Functionalized powder; ratio has be defined for each application (recommended 0.05 -0.5 wt.%)	50 g	Plastic bottle	250
				500 g	Plastic jar	2000
				5 kg	Plastic basket	18000

RAY provides also customized additives to polymers: silicone resins, elastomers & plastics in forms of ready-to-use master-batches, colloids or modified powders, which can be easily mixed with a basic material & do not require additional equipment to be applied in existing industrial processes.

Dear Sirs,

This product catalog is valid by the end of June 2021.

The prices do not include delivery, insurance and bank expenses.

In case of quote request or ordering, please fill the contact form in the website <https://www.nanodiamond.co.il/allproducts> and we will answer you shortly. Please feel free to contact for more information about our goods & the terms of their delivery.

We are always at your service.

Ray Techniques Team