

## CATALOG



2023 - II

## Carbon Nano-Powders

#	Product	Description	Reference	Weight	Packing	Price, \$
1	<b>RayND</b> 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	80
				10 g	Plastic vial	180
				100 g	Plastic bottle	1600
2	<b>RayND-AL</b> Code: 104	Nanodiamond powder of laser synthesis, hydroxylated & nitrogenized; metal free; for biomed research	<b>Hydrophilic &amp; Lyophilic, PL;</b> average grain size: 4.0-4.5 nm; ash residue: <0.02 wt.%	2 g	Glass vial	90
				10 g	Plastic vial	200
				100 g	Plastic bottle	2000
3	<b>RT-DND</b> Code: 110	Nanodiamond powder of detonation synthesis, purified, graphite & metal free, non-modified; for various applications	<b>Polydispersed;</b> average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	275
				500 g	Plastic jar	1100
4	<b>RT-DND-B</b> Code: 112	Detonation nanodiamond powder, purified, eliminated radicals; for metal & ceramic composites, dry lubrication, nuclear appl.	<b>Hydrophobic, lyophobic;</b> average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	400
				500 g	Plastic jar	1450
5	<b>RT-DND-L</b> Code: 113	Detonation nanodiamond powder, purified, hydroxylated; additive to polishes, coolants & compatible plastics (PE)	<b>Hydrophilic, lyophobic;</b> average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	315
				500 g	Plastic jar	1260
6	<b>RT-DND-LN</b> Code: 114	Detonation nanodiamond powder, purified, nitrogenized; for IPA, NMP, Cy, DMSO & acetone colloids & compatible rubbers	<b>Hydrophobic, lyophilic; high PL;</b> average grain size: 3.5-6.0 nm, ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	365
				500 g	Plastic jar	1460
7	<b>RT-DND-BM</b> Code: 115	Detonation nanodiamond powder, purified, ethylated; for compatible paints, lacquers, inks, synth. oils, polishes, slurries	<b>Hydrophobic, lyophilic;</b> average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	375
				500 g	Plastic jar	1500
8	<b>RT-DND-EI</b> Code: 118	Detonation nanodiamond powder, purified, alkylated & nitrogenized; for sintering and compatible polymers (PA)	<b>Hydrophobic, lyophobic;</b> average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	400
				500 g	Plastic jar	1600
9	<b>RT-DND-NH</b> Code: 119	Detonation nanodiamond powder, purified, nitrogenized & hydroxylated; for coolants, inks & wet polymer additives	<b>Hydrophilic, lyophilic, high PL;</b> average grain size: 3.5-6.0 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	450
				500 g	Plastic jar	1800
10	<b>RT-HPHT-L</b> Code: 133	Crashed High Pressure High Temperature nanodiamond powder, purified, hydroxylated; for polishing slurries, pastes & pads	<b>Hydrophilic, lyophobic;</b> average grain size: 40-50 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	350
				500 g	Plastic jar	1400
11	<b>RT-HPHT-AL</b> Code: 134	Crashed High Pressure High Temperature nanodiamond powder, purified, modified, hydroxylated & nitrogenized, for plating	<b>Hydrophilic, lyophilic;</b> average grain size: 40-50 nm; ash residue: <0.1 wt.%	10 g	Plastic vial	80
				100 g	Plastic bottle	400
				500 g	Plastic jar	1600
12	<b>RT-CNT</b> Code: 141	Carbon nanotubes hydroxylated; for water soluble polymer resins & other composite materials	<b>Hydrophilic, lyophobic;</b> Nanopowder contains 100 % CNT 75 % of which single wall	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, \$
13	<b>RayND-SP</b> Code: 201	1 wt. % disaggregated nanodiamond water colloid (carboxylated RayND), pH: 3.5-4.5; for biomed R&D	Disaggregated nanodiamonds dispersed in TDW, stable; average grain size: 4.0-4.5 nm	50 ml	Glass vial	85
				200 ml	4 glass vials	350
				1 L	Plastic bottle	1000
14	<b>RayND-W-4</b> Code: 202	4 wt. % nanodiamond water colloid (nitrogenized & hydroxylated RayND), pH: 3.5-4.5; for biomed R&D	TDW based nanofluid; highly dispersed & stable; <b>high PL;</b> average grain size: 4.0-4.5 nm;	50 ml	Glass vial	100
				200 ml	4 glass vials	300
				1 L	Plastic bottle	1200

15	<b>RayND-S-2 Code: 203</b>	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	50 ml	Glass vial	85
				200 ml	4 glass vials	250
				1 L	Plastic bottle	1000
16	<b>Ray-DMSO-5 Code: 204</b>	5 wt. % nanodiamond (RayND) dimethyl sulfoxide colloid, for cosmetics, biomed R&D, CVD diamond growth, fuel cells	Highly dispersed & stable; average grain size: 4.0-4.5 nm; <b>high PL</b>	50 ml	Glass vial	200
				200 ml	4 glass vials	600
				1 L	Plastic bottle	2250
17	<b>RT-DND-SP Code: 211</b>	1 wt. % nanodiamond (modified RT-DND) water colloid, pH=3.5-5.5; for inks, polishing, water soluble polymer resins	Disaggregated nanodiamonds, TDW-based, high stability; average grain size: 3.5-6.0 nm	50 ml	Glass vial	80
				200 ml	4 glass vials	125
				1 L	Plastic bottle	500
18	<b>RT-W-3A Code: 213</b>	3 wt. % aminated nanodiamond water colloid; for water soluble polymers, inks, coolants, sensors	Highly dispersed & stable; average grain size: 3.5-6.0 nm; <b>high PL</b>	50 ml	Glass vial	80
				200 ml	Plastic bottle	120
				1 L	Plastic bottle	400
19	<b>RT-Ac-4 Code: 214</b>	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; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	150
				1 L	40 glass vials	480
20	<b>RT-NMP-5 Code: 216</b>	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; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	180
				1 liter	40 glass vials	500
21	<b>RT-T-7 Code: 217</b>	7 wt. % nanodiamond toluene colloid; for paints, lacquers, adhesives, rubbers, fuels, explosives	Highly dispersed & stable; average grain size: 3.5-6.0 nm; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	200
				1 L	40 glass vials	780
22	<b>RT-ETA-5 Code: 218</b>	5 wt.% nanodiamond ethanolamine colloid for gas stream scrubbing	Highly dispersed & stable; average grain size: 3.5-6.0 nm; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	165
				1 L	40 glass vials	580
23	<b>RT-Xy-7 Code: 219</b>	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; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	200
				1 L	40 glass vials	780
24	<b>RT-Cy-7 Code: 220</b>	7 wt. % nanodiamond cyclohexane colloid, additive to anionic elastomers, CPL & nylon	Highly dispersed & stable; average grain size: 3.5-6.0 nm; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	200
				1 L	40 glass vials	780
25	<b>RT-DMF-7 Code: 221</b>	7 wt. % nanodiamond dimethylformamide colloid, for acrylic fibers, plastics, synthetic leathers, glues & other composites	Highly dispersed & stable; average grain size: 3.5-6.0 nm; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	200
				1 L	40 glass vials	780
26	<b>RT-Be-5A Code: 223</b>	5 wt. % nanodiamond 2-Butoxyethanol colloid; for varnishes, herbicides, latex paints, enamels	Highly dispersed & stable; average grain size: 3.5-6.0 nm; <b>high PL</b>	50 ml	Glass vial	80
				200 ml	Plastic bottle	120
				1 L	Plastic bottle	300
27	<b>RT-PGMEA-3 Code: 225</b>	3 wt. % nanodiamond 1-methoxy-2-propanol acetate colloid; additive to inks, coatings & cleaners, including silicon wafers	Highly dispersed & stable; average grain size: 3.5-6.0 nm; <b>high PL</b>	50 ml	2 glass vials	80
				200 ml	8 glass vials	150
				1 L	40 glass vials	480
28	<b>RT-D50-W5 Code: 231</b>	5 wt.% nanodiamond water colloid (hydroxylated HPHT-ND); for lapping, cooling, inner surfaces flow polishing, electroplating	Average grain size: 40-50 nm. Sonication before handling is recommended	100 ml	Glass vial	80
				1 L	Plastic bottle	250
				5 L	HDPE jerrican	1200
29	<b>RT-D50-W3A Code: 232</b>	3 wt.% nanodiamond water colloid (aminated HPHT-ND); for coatings, polishing, lapping	Highly dispersed & stable; average grain size: 40-50 nm; <b>high PL</b>	100 ml	Plastic bottle	80
				1 l	Plastic bottle	300
				5 liter	HDPE jerrican	1500
30	<b>RT-CNT-1 Code: 251</b>	1 wt.% CNT water-based colloid, for water soluble polymers & other composite materials	Highly dispersed & stable; Nanofluid contains CNT, 75 wt.% of which single wall CNT	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.

Nanodiamond Products for Industry						
#	Product	Description	Reference	Weight	Packing	Price, \$
31	<b>Ray-IPA-5</b> 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; <b>high PL</b>	50 ml	2 glass vials	120
				200 ml	8 glass vials	360
				1 L	40 glass vials	1440
32	<b>RT-W-10</b> 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	100 ml	Plastic bottle	80
				1 L	Plastic bottle	300
				5 L	HDPE jerrican	1200
33	<b>RT-Lub</b> Code: 312	4 wt.% nanodiamond additive to synthetic oils; recommended dilution: finishing: 1/60, running-in: 1/100, motor oils: 1/125	<b>Based on PAO6;</b> highly dispersed & stable; average grain size: 3.5-6.0 nm	100 ml	Plastic bottle	100
				1 L	Plastic bottle	700
				5 liters	HDPE jerrican	2500
34	<b>RT-Lap</b> 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	80
				1 L	Plastic jar	500
				6 l	6 plastic jars	1800
35	<b>RT-Lap-A</b> 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	80
				1 L	Plastic jar	300
				6 l	6 plastic jars	960
36	<b>ND-Galvano</b> 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	650
				5 L	HDPE jerrican	3000
				25 L	5 HDPE jers	14000
37	<b>ND-Depo</b> 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	1250
				4 kg	8 plastic jars	10000
				10 kg	2 plst baskets	24000
38	<b>ND-EP</b> Code: 411	Nanodiamond powder, additive to EP502 & other compatible epoxy resins, such as	Ratio should be defined by the customer for each application (recommended 0.02 -0.3 wt.%)	100 g	Plastic bottle	400
				500 g	Plastic jar	1800
				5 kg	Plastic bucket	15000

RAY provides also ready-to-use customized additives to polymers: silicone resins, elastomers & plastics in the form of master-batch, colloid or modified nanopowders, which can be easily mixed with a basic material & don't require additional equipment to be applied in existing industrial processes.

Dear Sirs,

**This product catalog is valid by the end December 2023.** The prices do not include delivery, currency exchange and insurance expences. In case of quote request or ordering, please fill the contact form here: <https://nanodiamond.co.il/all-products/> 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.

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