



PHANTOM AUTOMOTIVE SERIES

## SPECIFICATIONS

**phantom**

### 55 - NANO CARBON CERAMIC FILM Color: Black

### 57 - NANO CARBON CERAMIC FILM Color: Charcoal

### 59 - NANO CARBON CERAMIC FILM Color: Charcoal

VT	05%	15%	20%	30%	35%	40%	50%	05%	15%	20%	30%	35%	40%	50%	05%	15%	20%	30%	35%	40%	50%	
TSEB	66%	59%	51%	49%	51%	46%	41%	66%	61%	58%	54%	54%	50%	47%	70%	66%	64%	59%	58%	54%	54%	
FADING RESISTANCE	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	
IR REJECTION	72%	58%	53%	56%	53%	55%	56%	81%	70%	73%	74%	70%	70%	74%	92%	93%	93%	91%	92%	92%	92%	
UV REJECTION	99.99%							99.99%							99.99%							
VISIBLE LIGHT REFLECTION	INTERIOR	5.0%	5.3%	5.2%	5.4%	5.8%	6.2%	6.5%	5.1%	5.2%	5.4%	5.7%	5.9%	6.3%	6.8%	5.1%	5.2%	5.4%	5.8%	6.0%	6.3%	6.3%
	EXTERIOR	5.7%	5.7%	5.2%	5.6%	6.1%	6.1%	6.6%	5.5%	4.9%	5.4%	5.3%	5.7%	6.2%	6.8%	5.5%	5.0%	5.1%	5.5%	6.4%	6.2%	6.2%
IC	.47	.55	.62	.65	.63	.68	.73	.48	.53	.55	.59	.60	.64	.66	.44	.48	.49	.54	.55	.59	.59	
SHGC	.34	.41	.49	.51	.49	.54	.59	.34	.39	.42	.46	.46	.50	.53	.30	.34	.36	.41	.42	.46	.46	

\*Ask for a copy of your completed Rayno Window Film Phantom warranty card with the installation of the Phantom series on your vehicle. Submit the warranty to [warranty@raynofilm.com](mailto:warranty@raynofilm.com) within 30 days of installation. Contact us at **844-RAY-FILM** for more details.



## MISSION

Our mission is to inspire true innovation within the window industry. We strive to lead in product innovation, as well as in quality and service, providing our customers with the best value and best protection of any window film on the market.

## THE GUARANTEE

Phantom series films are backed by a reliable warranty program and are guaranteed to meet higher standards than any other window film. We offer a lifetime warranty program, providing extensive coverage for both customers and dealers. Specific terms may vary by region.

RAYNOFILM.COM

844-RAY-FILM | CONTACT@RAYNOFILM.COM





## DIVINE INNOVATION

The Phantom series is an extension of our vision to create a better quality of life. This premium automotive line was designed to help you keep your vehicles in mint condition, maximize your cars' performance, enhance privacy and protect you and your interiors from the damaging effects of the sun. It's a unique product—the world's first carbon ceramic film, and something that only we have the power to produce. Call it divine intervention—we call it our patented Nano Carbon Ceramic technology.

## NANO CARBON CERAMIC WINDOW FILM

Our proprietary Nano Carbon Ceramic window films optimize the advantages of both carbon and ceramic. By reducing the size of carbon particles down to nanoscale, we've mitigated the glare caused by carbon's large size while retaining its incredible color stability. And by integrating color stable pigment and high purity ceramic into our formula, we've further enhanced visibility and created an overall product that boasts higher durability and heat rejection than any other automotive window film on the market.

## COLOR STABILITY

Traditional dyed films are greatly affected by UV light and humidity, fading and discoloring rapidly with exposure. To prevent this in the Phantom line, we encapsulated individual ceramic particles for increased durability and guaranteed color stability. This ensures you have a dye-free solution that keeps you protected and prevents your windows from turning that unattractive "purple" color over time.

## CLARITY AND HAZE

Heavy rain or excessive shine, we've developed our films to maximize visibility at all times of day, reducing glare, increasing clarity and altogether saving your eyes from strain—allowing you to drive confidently in all conditions.

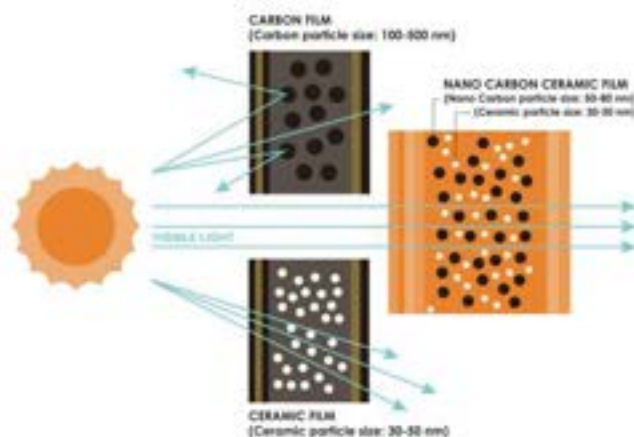
## SOLAR CONTROL

During independent testing, Rayno Phantom Series window tints improved TSER, the amount of heat and skin- and vision-damaging light allowed into your vehicle, by up to 70 percent. Additionally, our films reject harmful UV and infrared rays by nearly 99 percent, higher than most over other window film brands.

## SUPERIOR QUALITY

With our dye-free, Nano Carbon Ceramic technology, the Phantom series is made to last. Offering more than 10 years of durability, clarity and color stability, our films allow you to get the most out of your vehicle for the entirety of its life.

## MAXIMUM EFFECTIVENESS



Our Nano Carbon Ceramic film is more effective than carbon film, whose large particles often reflect and redirect light, and ceramic film, whose small particles oxidize rapidly.

## CLARITY TEST

PRODUCT	VLT/ IR-REJECTION	HAZE (WITH RELEASE FILM)	HAZE (WITHOUT RELEASE FILM)	HAZE (RELEASE FILM ONLY)
PHANTOM 55-05	07/72	1.51	0.75	1.30
PHANTOM 55-20	22/53	1.46	0.72	1.23
PHANTOM 55-35	37/53	1.45	0.71	1.23
PHANTOM 57-20	22/73	1.68	0.94	1.23
PHANTOM 57-35	37/70	1.51	0.87	1.23
PHANTOM 59-50	52/92	1.65	0.81	1.30
COMPETITOR A	14/30	2.55	1.18	2.70
COMPETITOR B	41/33	2.40	1.70	1.70
COMPETITOR C	26/49	3.00	2.02	1.36
COMPETITOR D	14/81	2.70	2.08	1.56

Phantom series tinted window films are recorded as having lower haze readings than other automotive window film products. \*Product Htz measured by Haze Meter NDH 2000 (Nippon Denshoku Industries Co., Ltd.)