

Magnetic Separation Chart for Look-Alike Gems

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Based on Magnetic Response

Garnet

Vs

Most Other Natural Transparent Gemstones

Picks Up (diagnostic)

Inert to Drags

A Pick Up response by any transparent gemstone of average size is generally a positive identification for Garnet. No other natural transparent *primary* gemstone will give this response. Grossular Garnets don't Pick Up (Hessonite, Tsavorite, Mali, and lesser known varieties). Demantoid is the only green Garnet that picks up.

Rhodolite Garnet

Vs

Purplish Red Sapphire

Picks Up

Inert to Moderate

Chrome Pyrope Garnet

Vs

Ruby

Drags

Weak to Moderate

Rhodolite Garnet

Vs

Amethyst

Picks Up

Inert

Rhodolite Garnet

Vs

Rubellite Tourmaline

Picks Up

Inert to Moderate

Rhodolite Garnet

Vs

Purplish Red Spinel

Picks Up

Weak to Moderate

Most Red Garnets

Vs

Red Spinel

Pick Up

Weak to Moderate

Most Red Garnets

Vs

Red Zircon

Pick Up

Inert

Orange Spessartine Garnet

Vs

YAG/CZ

Picks Up

Inert to Weak

Orange Spessartine Garnet

Vs

Hessonite Garnet

Picks Up

Moderate to Strong

Orange Spessartine Garnet

Vs

Orange Sapphire

Picks Up

Weak to Moderate

Demantoid Garnet

Vs

All Other Transparent Green Gemstones

Picks Up (diagnostic)

Inert to Strong

<u>Hessonite Garnet</u>	Vs	<u>Orange Dravite Tourmaline</u>
<i>Moderate to Strong</i>		<i>Inert</i>
<u>Brown Mali Garnet</u>	Vs	<u>Brown Sphe</u>
<i>Drags</i>		<i>Strong</i>
<u>Tsavorite Garnet</u>	Vs	<u>Chrome Tourmaline</u>
<i>Weak to Strong</i>		<i>Inert</i>
<u>Almandine Garnet</u>	Vs	<u>Purple Spinel</u>
<i>Picks Up</i>		<i>Weak to Moderate</i>
<u>Black Garnet (Melanite)</u>	Vs	<u>Black Diamond (Carbonado)</u>
<i>Picks Up</i>		<i>Inert</i>
<u>Spinel (except pale stones)</u>	Vs	<u>Synthetic Spinel</u>
<i>Weak to Moderate</i>		<i>Inert (except some green gems)</i>
<u>Aquamarine</u>	Vs	<u>Blue Topaz</u>
<i>Weak to Moderate</i>		<i>Inert</i>
<u>Indicolite Tourmaline</u>	Vs	<u>All Other Blue Gemstones of Any Transparency</u>
<i>Drags (diagnostic)</i>		<i>Inert to Moderate</i>
<u>Verdelite Tourmaline</u>	Vs	<u>Tsavorite Garnet</u>
<i>Drags</i>		<i>Weak to Strong</i>
<u>Iolite</u>	Vs	<u>Tanzanite (Zoisite)</u>
<i>Moderate to Strong</i>		<i>Inert</i>
<u>Purple Sapphire</u>	Vs	<u>Amethyst</u>
<i>Weak to Moderate</i>		<i>Inert</i>
<u>Yellow Feldspar</u>	Vs	<u>Yellow Quartz (Citrine)</u>
<i>Weak to Moderate</i>		<i>Inert</i>
<u>Peridot</u>	Vs	<u>Idocrase</u>
<i>Drags</i>		<i>Strong</i>
<u>Verdelite Tourmaline</u>	Vs	<u>Chrome Tourmaline</u>
<i>Strong to Drags</i>		<i>Inert</i>

<u>Chrome Diopside</u>	Vs	<u>Chrome Tourmaline</u>
<i>Weak to Strong</i>		<i>Inert</i>
<u>Jadeite/Nephrite (green or black)</u>	Vs	<u>Dyed Chalcedony or Synthetics</u>
<i>Weak to Strong</i>		<i>Inert</i>
<u>Turquoise</u>	Vs	<u>Polymers, Odontolite or Dyed Howlite</u>
<i>Weak to Moderate</i>		<i>Inert</i>
<u>Sphene</u>	Vs	<u>Sphalerite</u>
<i>Weak to Strong</i>		<i>Inert</i>
<u>Orange Sapphire</u>	Vs	<u>Orange Mexican Fire Opal</u>
<i>Weak to Moderate</i>		<i>Inert</i>
<u>Alexandrite</u>	Vs	<u>Synthetic Alexandrite</u>
<i>Weak</i>		<i>Inert</i>
<u>Tanzanite</u>	Vs	<u>Violet YAG</u>
<i>Inert</i>		<i>Weak</i>
<u>Glass/Garnet Doublet</u>	Vs	<u>Unassembled Gems</u>
<i>Inert Glass side /Strong Garnet side</i>		<i>Uniform magnetic response</i>
<u>Diamond</u>	Vs	<u>Imitation & Synthetic Diamond</u>
<i>Inert</i>		<i>Any magnetic response eliminates natural Diamond</i>

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