

Gelatin vs Agar Agar (vsdiff.com)

Property	Gelatin	Agar agar
Source	Animal collagen (pork/beef/chicken) — <i>protein</i>	Red algae (seaweed) — <i>polysaccharide</i>
Chemistry	Mixture of peptides and proteins from denatured collagen	Complex sulfated polysaccharides (agarose + agaropectin)
Gelling mechanism	Protein chain coil-to-helix reassociation forming a network	Polymer double-helix and aggregated network stabilized by hydrogen bonds
Setting / melting (approx.)	Sets \approx 5–25°C; melts near body temp \approx 30–37°C (varies with Bloom)	Sets \approx 32–40°C; melts \approx 80–95°C — <i>thermostable</i>
Texture	Elastic, melt-in-mouth , glossy	Firm, clean-cut , often brittle
Typical strength	Measured in Bloom (\approx 50–300 Bloom); softer per wt	Stronger per weight; often 5–10 \times gel strength vs gelatin
Dietary	Not vegetarian/vegan; halal/kosher status depends on source	Vegetarian/vegan and broadly acceptable
Common applications	Confectionery, desserts, capsules, stabilizers, film-forming	Microbiology plates, vegetarian gelling, clarifying, stabilizer

Source: <https://vsdiff.com/gelatin-vs-agar-agar/>