

NLGI Grades Explained

NLGI Grade is a widely used classification for lubricating greases . It was established by the National Lubricating Grease Institute. Greases are classified in one of nine grades based on their consistency.

NLGI Grades 000 to 1 are used in applications requiring low viscous friction. Examples include enclosed gear drives operating at low speeds and open gearing. Grades 0, 1 and 2 are used in highly loaded gearing. Grades 1 through 4 are often used in rolling contact bearings where grade 2 is the most common.

Lower NLGI Grades are softer and flow better, while higher numbers are firmer, tend to stay in place, and are a good choice when leakage is a concern. The table compares the most common NLGI Grades with household products that have similar consistencies.

NLGI Grade	Appearance	Consistency food analogue
000	fluid	cooking oil
00	fluid	apple sauce
0	very soft	brown mustard
1	soft	tomato paste
2	moderately soft	peanut butter
3	semi-fluid	vegetable shortening
4	semi-hard	frozen yogurt
5	hard	smooth pate
6	very hard	cheddar cheese spread

Source: Wikipedia