

## Grease consistency/penetration

A measure of the stiffness of a grease. The consistency is classified according to a scale developed by the NLGI (National Lubricating Grease Institute). This is based on the degree of penetration achieved by allowing a standard cone to sink into the grease at a temperature of 25 °C for a period of five seconds. The depth of penetration is measured on a scale of  $10^{-1}$  mm and the softer greases allow the cone to penetrate further into the grease, hence the higher penetration number. The test method is in accordance to DIN ISO 2137.

Classification of greases by NLGI consistency number		
NLGI number	ASTM worked penetration ( $10^{-1}$ mm)	Appearance at room temperature
000	445 - 475	very fluid
00	400 - 430	fluid
0	355 - 385	semi-fluid
1	310 - 340	very soft
2	265 - 295	soft
3	220 - 250	medium hard
4	175 - 205	hard
5	130 - 160	very hard
6	85 - 115	extremely hard

