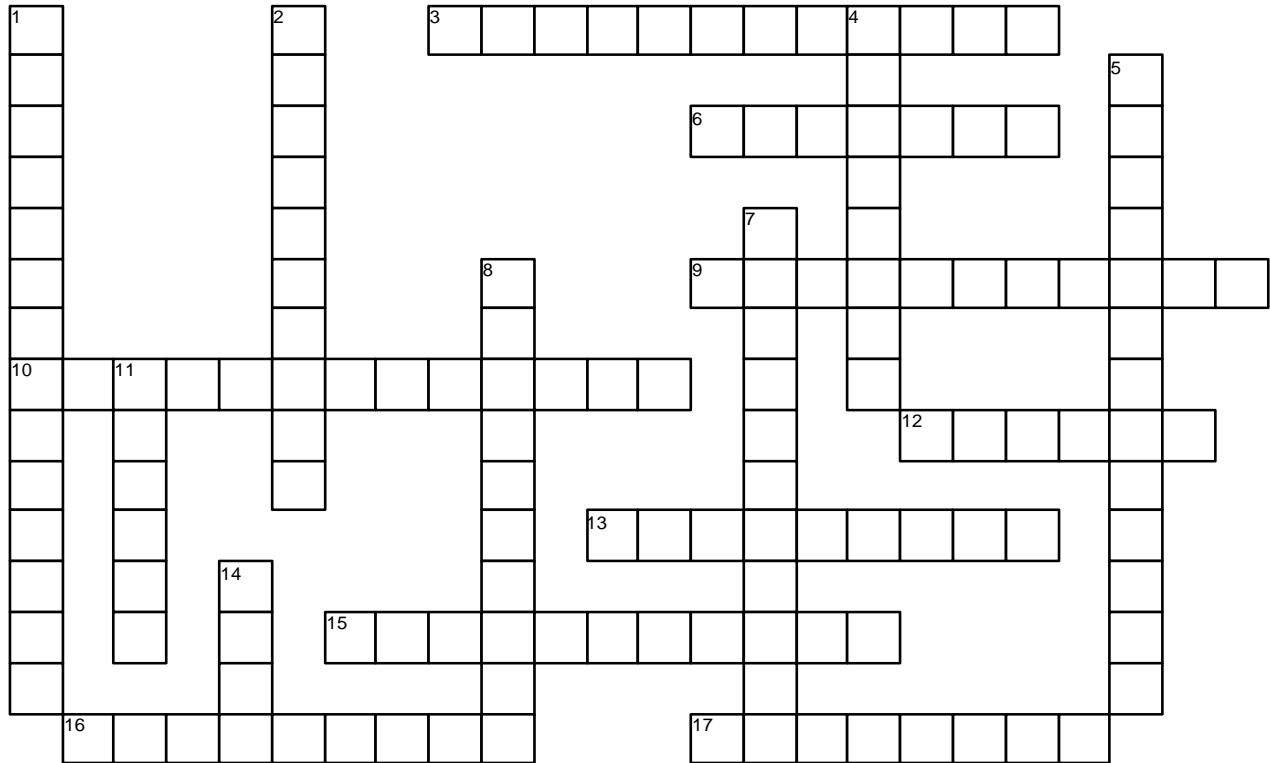


# Braking Principles And Friction Materials

## Chapter 4



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### ACROSS

- 3 The term \_\_\_\_\_ refer to brake lining material that uses metal, rather than asbestos, in its formulation.
- 6 Synthetic friction material are of ten called \_\_\_\_\_ in the American afermarket .
- 9 Another term f or brake pads that use synthetic fibers is called \_\_\_\_-\_\_\_\_\_ organic (NAO).
- 10 The amount of friction between two objects or surfaces is commonly expressed as a value called \_\_\_\_\_ friction.
- 12 \_\_\_\_\_ is a soft metal with very high thermal and electrical conductivity and is used in most brake lining/pads.
- 13 Starting in 1964, brake linings have been using a standardized way to identify the brake lining materials, The \_\_\_\_ \_\_\_\_ follow the SAE Standard J866a.
- 15 \_\_\_\_-\_\_\_\_\_ synthetic (NAS) is another term that may be used in referring to synthetic brake linings.
- 16 The loss of brake power is called \_\_\_\_\_.
- 17 \_\_\_\_\_ is the term used to describe naturally occurring silicate minerals that consist of long fibers.

### DOWN

- 1 \_\_\_\_\_ occurs when a brake drum overheats and expands away f from the brake lining.
- 2 Most vehicles have a forward \_\_\_\_\_, which means that even when stopped, more than 50% of their weight is supported by the front wheels.
- 4 All brake pads and shoes manufactured after January 1, 2015, are required to have a \_\_\_\_\_ icon indicating the level of compliance with state friction material content legislation.
- 5 \_\_\_\_\_ is a fundamental form of mechanical energy . It is the energy of mass in motion.
- 7 Brake pads and linings that use synthetic material, such as aramid fibers, instead of steel are usually referred to as \_\_\_\_-\_\_\_\_\_.
- 8 \_\_\_\_\_ affects both drum and disc brakes and occurs when the friction material overheats to the point where its coefficient of friction drops off.
- 11 The ability to do work is called \_\_\_\_\_.
- 14 The transfer of energy form one physical system to another-especially the transfer of energy to an object through the application of force is called \_\_\_\_\_.