

PRODUCT DESCRIPTION

CHESTER MOLECULAR product **ChesterLock P30** is a composition consisting of liquid acrylic compounds and microencapsulated chemical initiators. During assembly microcapsules are crushed thereby releasing an active ingredient which initiates the curing process.

APPLICATION FIELDS

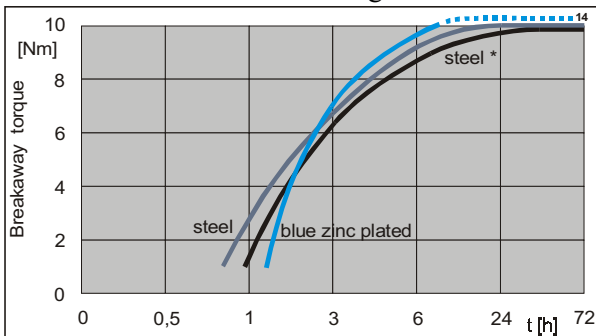
Sealing leakage from thread and fit joints.
 Corrosion protection.

PROPERTIES

Form	dry coating
Colour	green
Flash point [°C]	>100

TYPICAL CURING PERFORMANCE
Cure speed vs. substrate

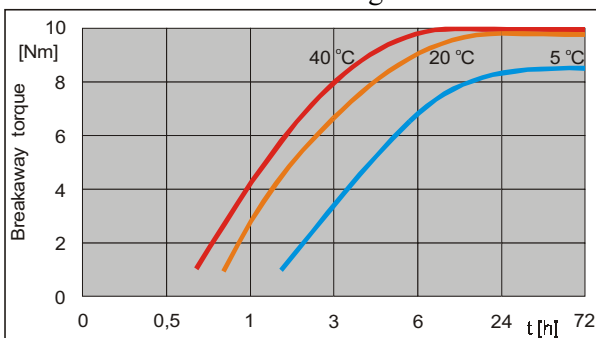
The graphs below show the relative increase in breakaway torque developed with time compared to various materials. Developed on M10 medium bolts and nuts. Tested according to ISO 10964.



steel* – tough steel

Cure speed vs. temperature

The graph below shows the relative increase in breakaway torque developed with time at different temperatures. Developed on M10 medium steel bolts and nuts. Tested according to ISO 10964.



Coefficient of thermal expansion [1/K]	ca. 10^{-4}
Coefficient of thermal conductivity [W/mK]	ca. 0.1
Specific heat [J/kgK]	ca. 300

PERFORMANCE OF CURED MATERIAL

Breakaway torque [Nm]

[ISO 10964 (3.3)]

Value: **10**

Range: 5-15

Shear stress [Nm]

[DIN 53283]

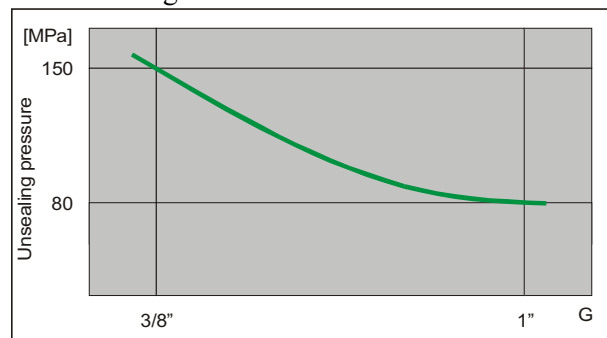
Value: **2**

Range: 1-3

After 24h hardening at 22°C with M10 medium steel nuts and bolts.

Breakloose torque

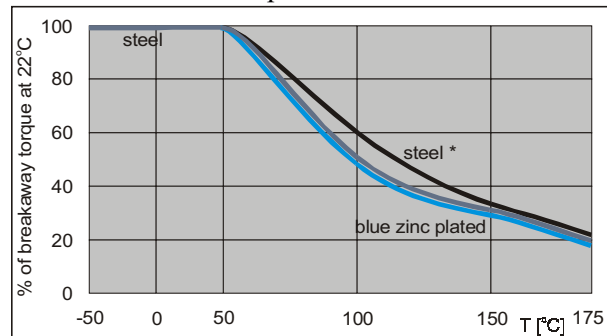
The graph below shows the breakloose torque compared to put down torque. Developed on M10 medium steel bolts and nuts. Tested after 72h hardening at 22°C.


Breakaway torque vs temperature

The graphic presentations show the relative decrease or increase in breakaway torque developed with temperature compared to various materials. Developed on M10 medium bolts and nuts.

Tested according to ISO 10964.

Parts are tested at temperature.

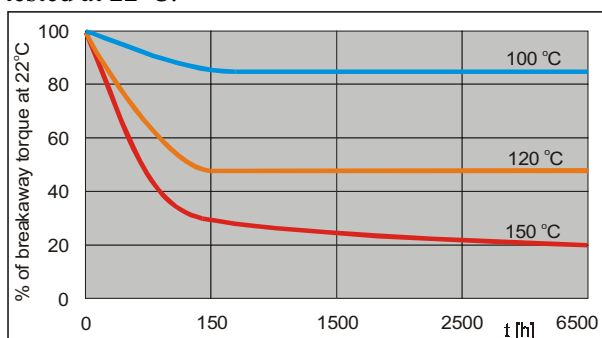


steel* – tough steel

PHISICAL PROPERTIES OF CURED MATERIAL

Breakaway torque at higher temperatures over a long period of time (Heat Aging)

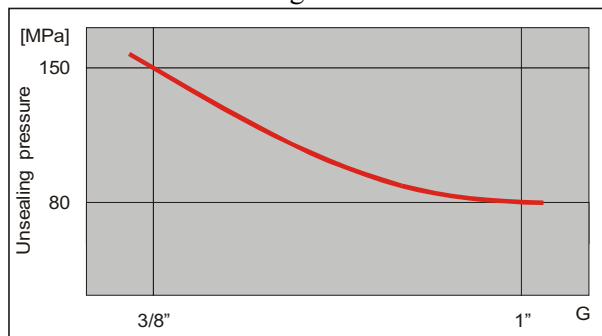
The graphic presentation shows the relative decrease or increase in breakaway torque as a function of the duration at various temperatures, compared to blue zinc plated. Developed on M10 medium bolts and nuts. Tested according to ISO 10964. Parts are aged at temperature indicated and tested at 22°C.



Pressure-tight joints on the treads.

The graph below shows the pressure-tight joint compared to thread size. Developed on tube coupling with yellow zinc plated.

Tested at 20°C according to ISO 228-1.



CHEMICAL RESISTANCE

Solvent	Chemical resistance
Petrol	+
Diesel oil	+
Brake fluid	+
Motor oil 130 °C	+
Glycol	+
Paraffin	+
Ethanol	+
Nitric acid 10%	+
Vinegar acid 10%	+
Amine	+
Phenol	+

Hydroxypropionic acid	+
Salt water	+
Ethanol	+
Natural gas	+
Ammonia	-
Chlorine	-
Oxygen	-

In the table, the following nomenclature has been used:

+ - can be used without restriction

- - not recommended

The complete Resistance Table for CHESTER anaerobic materials can be found on our website

www.chester.com.pl

GENERAL INFORMATION

Storage

Coated fasteners shall be stored at a temperature 20°C in dry and clean place. Stability 36 months.

Instruction for use

ChesterLock P30 may be applied to threaded parts by Chester Molecular who have automatic fastener coating and drying equipment.