

For special environment

IKO

Solid Lubrication

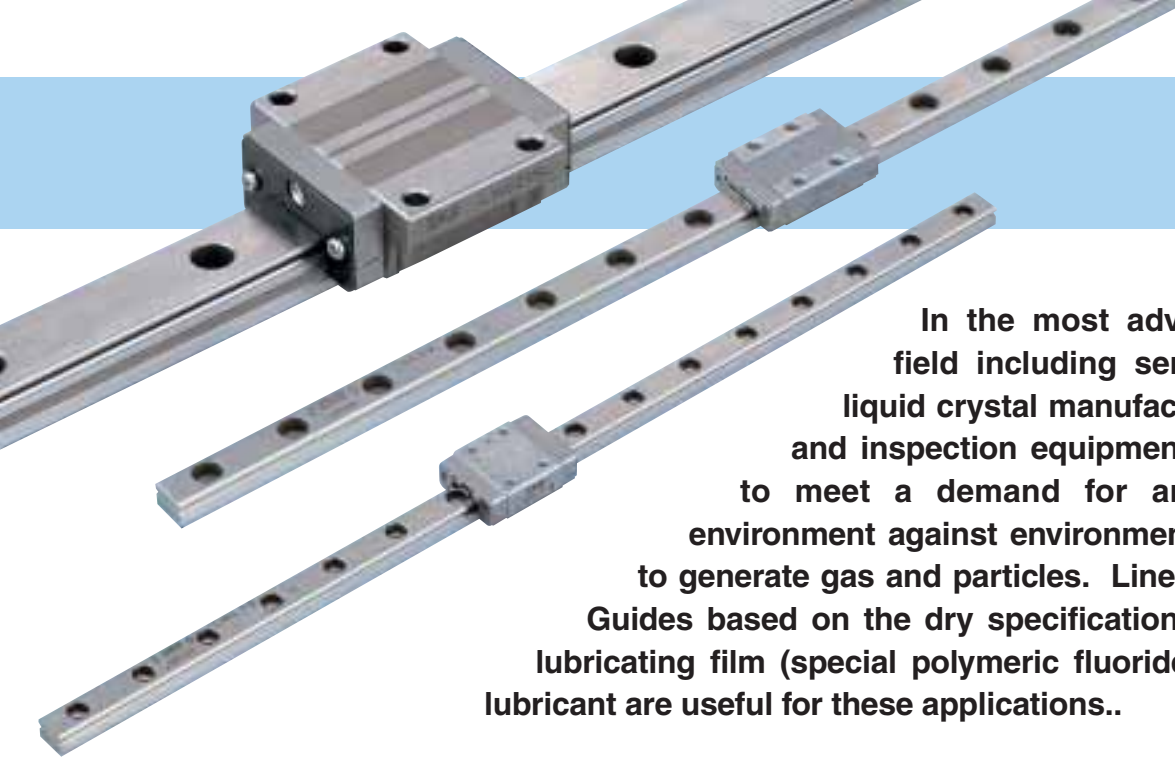
Linear Motion Rolling Guide Series

Special Polymeric Fluoride Coating



*Challenging the new frontier of special environment
with fresh ideas and long experiences.*

CAT-5938



In the most advanced industrial field including semiconductor and liquid crystal manufacturing equipment and inspection equipment, it is necessary to meet a demand for an oil/grease-free environment against environmental pollution due to generate gas and particles. Linear Motion Rolling Guides based on the dry specification that use a solid lubricating film (special polymeric fluoride coating) as the lubricant are useful for these applications..

Special Polymeric Fluoride Coating (*CLEANPro³*)

Unlike the existing heat-treated film by PTFE, this is a film made of a polymeric fluoride material having almost the same hardness as PTFE resin without using any binder.

This film has excellent properties. It is thermally and chemically stable and excellent in cleanliness and environment resistance. In spite of a sub-micron thin film, it has a long life.

Features of *CLEANPro³*

1

Low dusting

The particle generation life can be estimated.

2

Low gas generation

In a high-vacuum (10^{-5} Pa) ambient atmosphere, it can be used up to 200°C.

3

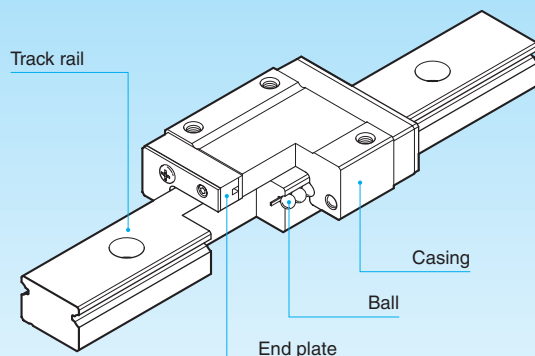
High density special polymeric fluoride coating

4

Uniform coating on all the surfaces of Linear Motion Rolling Guides

Sub-micron film thickness

Specifications of **IKO** Solid Lubrication Linear Motion Rolling Guide Series



Standard specification

Casing	Stainless steel
Track rail	Stainless steel
Ball	Stainless steel or Ceramics
End plate	Stainless steel

Remark: Special polymeric fluoride is uniformly coated as a lubricant on all surfaces.

Lubrication Linear Motion Rolling Guide Series

Particle Generation Life Test Result of Linear Way

With the slide unit and track rail with special polymeric fluoride coating (*CLEANPro³*), tests were conducted by changing only the ball specifications.

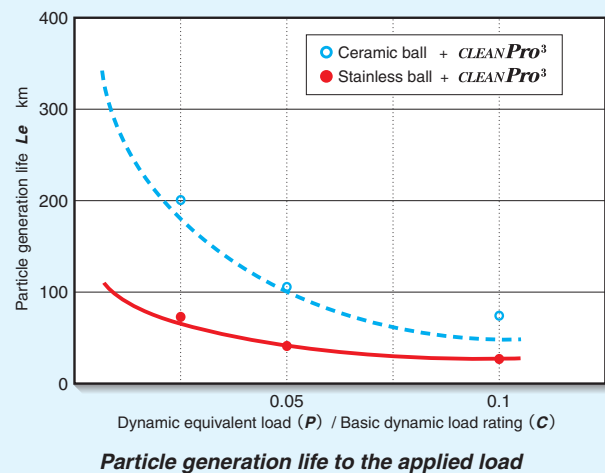
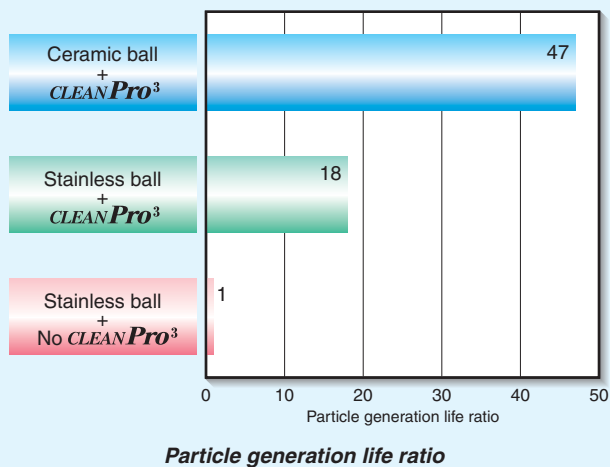
Test conditions

Sample : LWL 9
 Applied load : 80 N
 Speed : 250 mm/s
 Stroke length : 250 mm
 Environment : Cleanliness class 10 (Federal standard 209D), room temperature

Particle generation life : When the number of particles with a particle size of 0.1 μm or more reaches 1000 particles/0.1 cf.

Particle generation

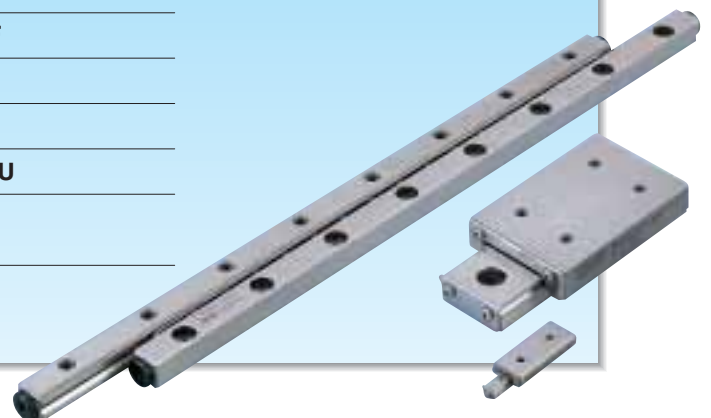
life ratio : Ratio to the particle generation life with non-treated stainless balls



Applicable Series and Model Codes

Series	Main model code
Linear Way L	LWL, LWLF
Linear Way E	LWE
Linear Way H	LWH
Crossed Roller Way	CRW, CRWU
High-rigidity Precision Linear Slide Unit	BWU

Products are manufactured on a make-to-order basis.



[Solid Lubrication]
Linear Motion Rolling Guide Series



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