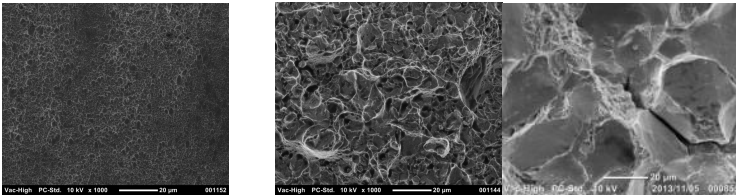




EK Quality

Quality comparison test data : EK chains vs LCC economy chain

Tensile test : Pin fracture cross section SEM comparison



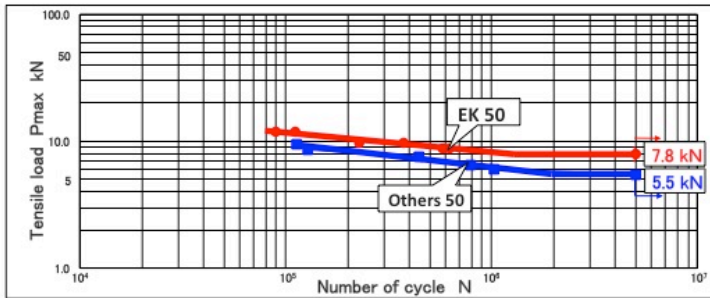
EK chain
Ductile fracture

Economy chain
Ductile fracture

Economy chain
Brittle fracture

EK chain pin : fine ductile fracture which shows high toughness and fatigue strength
Economy chain pin : Larger grain ductile or brittle fracture which may not have enough strength against shock load.

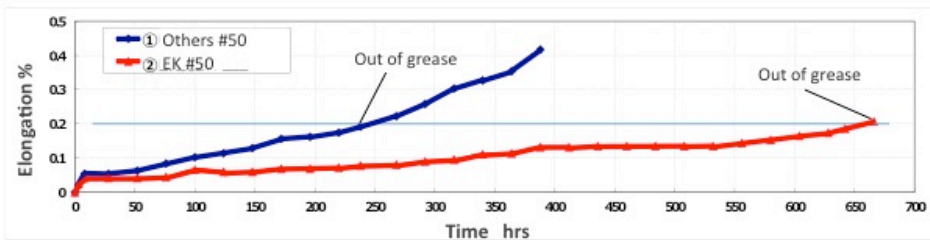
Fatigue strength comparison



EK chain has 1.5 times higher fatigue strength and 6 times more fatigue life compared with Economy chain. Fatigue strength is determined by mixed factors such as

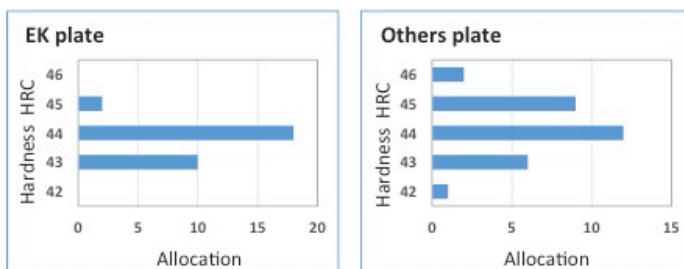
1. Plate hole finish quality
2. Plate hardness variations
3. Shot peening uneven coverage
4. Plate and pin engagement variations

Wear elongation comparison



EK chain has 2.7 times longer wear life compared with Economy chain. Wear elongation is caused by components and assembling variations and grease quality and its retention

Production (plate hardness) variation comparison



EK chain components have stable quality which is based on EK's high-end manufacturing capabilities and quality control system. EK's plate hardness shows much narrower variation compared with Economy chain. Premature breakage of a chain may occur by only one out of spec components