

Assessment – brief summary

Test characteristic	Test result	Assessment*	
Shock absorption (penetration depth)			
– In new condition			
Joint calotte	10.4 mm		+
Horseshoe (10,000 / 2,000 N)	14.1 / 3.8 mm		++
– After permanent tread load (250,000 footsteps)			
Joint calotte	10.3 mm		+
Horseshoe (10,000 / 2,000 N)	13.5 / 4.2 mm		++
– After climatic exposure			
Joint calotte -20 °C	8.2 mm		+
Joint calotte +40 °C	10.4 mm		+
Horseshoe -20 °C (10,000 / 2,000 N)	9.7 / 2.9 mm		+
Horseshoe +40 °C (10,000 / 2,000 N)	13.8 / 4.0 mm		++
Permanent tread load			
Permanent deformation		none	++
Wear on top side		no significant wear	+
Wear on underside (studs)		no significant wear	+
Deformation after climatic exposure			
After -20 °C	-0.6 %	no significant deformation	+
After +40 °C	+0.3 %	extremely low	++
Abrasion resistance			
Quantity of abraded material	20.8 g		
Abrasion depth	3.9 mm (9.8 %)	low	+
Acid resistance			
Feed acid mixture, pH 2	weight loss > 5 %	partially resistant	○
Uric acid, 2 % solution	hardening > 10 %	resistant	+
Ammonia, 32 % solution	hardening > 10 %	resistant	+
Sulfurous acid, 5-6 % SO ₂	weight loss > 20 %	partially resistant	○
Stable disinfectant**	weight loss > 10 %	partially resistant	○
Peracetic acid, 3000 ppm	weight loss > 5 %, hardening > 10 %	partially resistant	○
Hoof oil, 1 ml		resistant	+
Slip resistance***			
Bare hoof, dry	$\mu = 0.82$		+
Bare hoof, wet	$\mu = 0.81$		+
Horseshoe, dry	$\mu = 0.68$		+
Horseshoe, wet	$\mu = 0.54$		+

* Assessment: – = requirements not met ($\mu < 0.45$), + = requirements met ($\mu > 0.45$)

** (2 % solution based on formic acid and glyoxylic acid) 2 %-solution of a product with formic acid and glyoxyl acid

*** Assessment Slip resistance: - = requirements not met ($\mu < 0.45$), + = requirements met ($\mu > 0.45$)