ACL RACE SERIES

PERFORMANCE ENGINE BEARINGS

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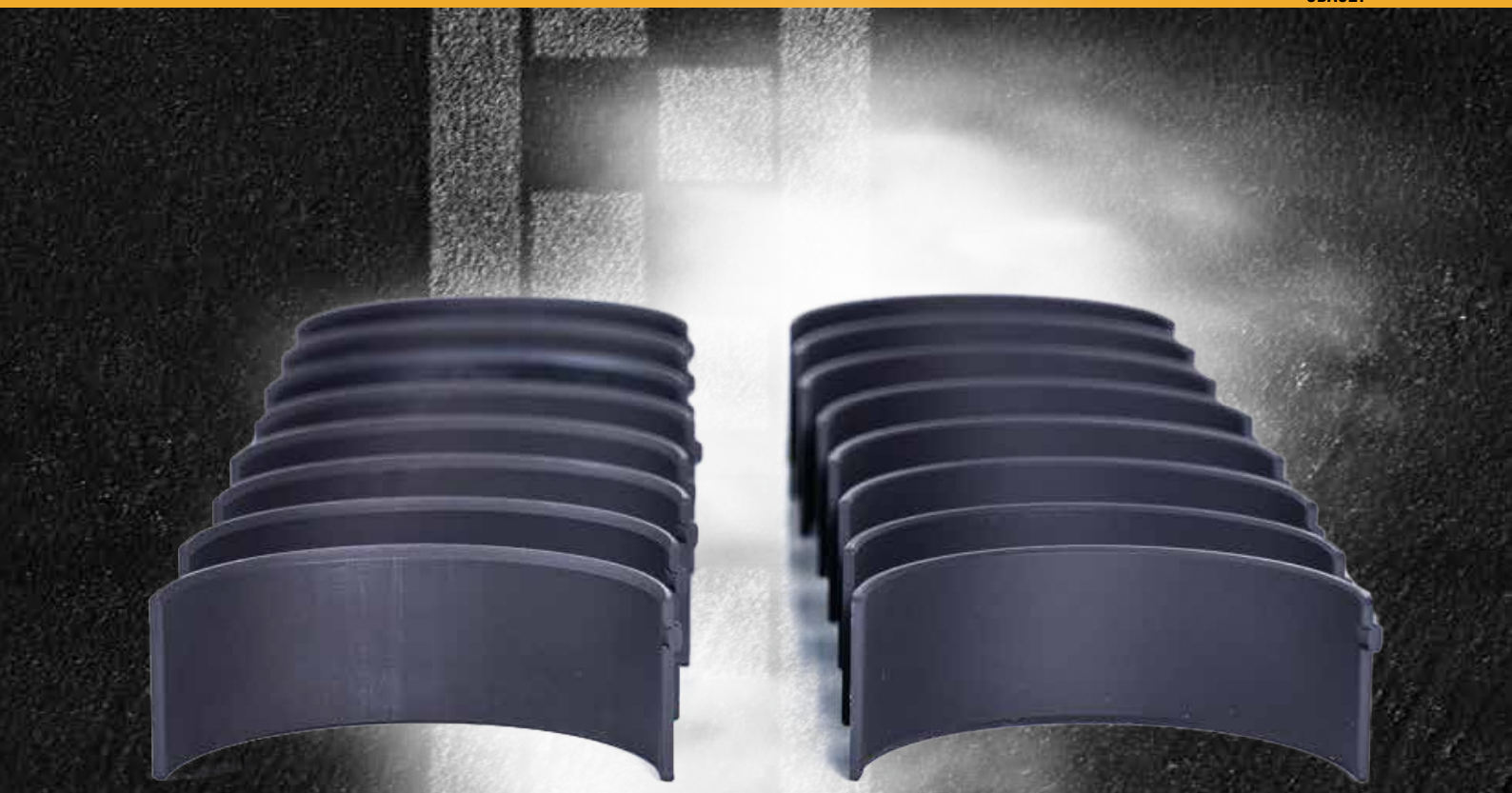


COATED PERFORMANCE ENGINE BEARING APPLICATION GUIDE 2021

CALICO COATINGS

COATED BEARINGS

Long term players in the performance engine bearing industry ACL RACE Series Performance Engine Bearings & Calico Coatings have formed a collaboration to offer users an additional option in performance engine building. ACL and Calico are, respectively, technological leaders in the fields of performance engine bearings and performance coatings. Both companies have exemplary reputations for quality, performance & knowledge in their areas of specialization.

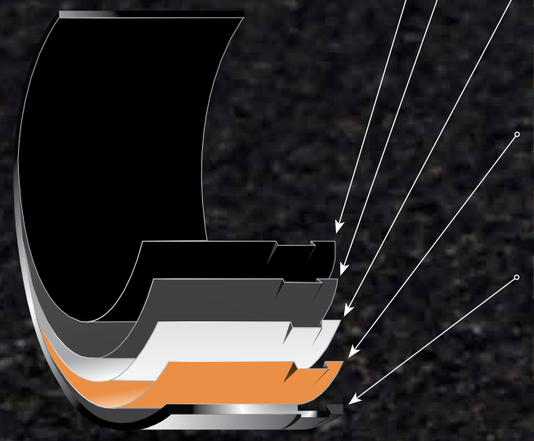
ACL engine bearings have been coated by Calico for individuals for over 15 years, with proven compatibility and an established track record of excellence in the most exacting and extreme performance applications.

ACL and Calico both have rich histories in motorsport, the racetrack is the perfect proving ground. This alliance culminates in the release of ACL offering a range of Calico coated ACL RACE Series Performance Engine Bearings. The coated range is available through all current ACL distributors.

DESCRIPTION

Our coated bearings combine ACL's tough RACE Series lining and overlay metallurgy with Calico's well renowned CT-1 coating.

CT-1 is a Dry Film Lubricant coating that helps reduce friction and abrasive wear. It provides intermittent dry lubrication and is not affected by dust or dirt. CT-1 is specifically engineered to withstand the extreme conditions of today's high performance engines. Professional engine builders enjoy a higher level of confidence with increased embedability, strength and durability.



COATING	Calico CT-1 Dry Film Lubricant
Thickness (Typical) 0.006 - 0.0075mm / .00025" - .0003"	
Scuff Resistant - Low Friction Surface Interaction	
OVERLAY	Lead - Tin - Copper
Thickness (Typical) 0.013* - 0.018mm / 0.0005" - 0.0007"	
*Connecting Rod Bearings Only - Reduced for increased fatigue resistance	
Seizure Resistant -Low friction and deformable	
BARRIER	Nickel
Thickness (Typical) 0.001mm / 0.00004"	
Separation Layer	
LINING	Copper - Lead - Tin
Thickness (Typical) 0.3mm / 0.012"	
Fatigue Strength - Strong yet deformable	
STEEL	SAE1010 (High tensile)
Thickness (Typical) Remainder	
High Strength - Supports bearing lining	

PROCESS

CT-1 Dry Film Lubricant coating is applied as a spray process. Different surface preparation methods appropriate for the substrates will be used prior to the coating process. Coating thickness is varied to suit the application. Typical coating thickness for engine bearings is 0.00025" to 0.00030" inch (6 to 7.5 microns).

ADVANTAGES

Provides intermittent dry lubrication, not affected by dust or dirt, low coefficient of friction. Thin coating to accommodate assembly constraints, chemical resistance, corrosion protection, reduced friction and drag resulting in decreased parasitic losses.

- Corrosion Protection
- Increased Lubricity
- Low Coefficient of Friction
- Oil and Fuel Resistant

EMBEDABILITY

CT-1 coated bearings have excellent embedability characteristics, allowing debris contaminates to embed in the bearing, avoiding damage to the crank.

EXTREME OIL TEMPERATURES

CT-1 coated bearings have shown a reduction in oil temperatures as much as 8°C - 11°C / 15°F - 20°F. Lower oil temperatures also aid in the loss of viscosity due to extreme heat.

LOW OIL PRESSURE/OIL STARVATION

Theoretically a crankshaft rides on a thin film of oil that protects both the crank and bearing. Real world experience such as cold starts and rough terrain conditions have proven otherwise. CT-1 coated engine bearings provide a dry film lubricant that protects against intermediate oil starvation.

APPLICATIONS

- Conrod Bearings
- Main Bearings
- Camshaft Bearings
- Thrust Washers
- Bushes

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Application	Rod Bearing Set	Sizes	Main Bearing Set	Sizes	Thrustwasher Set	Size
Audi 1595cc, 1781cc (incl. Turbo), 1984cc A3, A4, A6, TT, 80, 90, 100 (1983-2001)	4B1606HC	Std, .025, .25	5M1644HC	Std, .25	2T1644C	Std
	4B1606HXC	Std	5M1644HXC	Std		
Custom Performance (1.889" journal, 0.792" wide)	8B1663HC	Std				
	8B1663HXC	Std				
Chev 262, 267, 302, 305, 307, 327, 350 ci V8 - Small Block	8B663HC	Std,010	5M909HC	Std, 001, 010		
	8B663HXC	Std	5M909HXC	Std		
Chev 265, 283, 302, 327 ci V8	8B745HC	Std	5M429HC	Std, 001		
	8B745HXC	Std	5M429HXC	Std		
Chev 4.8L & 5.3 L (Gen III & IV), 5.7L LS1, LS6 Gen III, 6.0L LS2, Vortec (Gen III & IV), 6.2L LS3, Vortec (Gen IV)	8B663HC	Std,010	5M7298HC (270° groove)	Std, 010		
	8B663HXC	Std	5M7298HXC (270° groove)	Std		
			5M7299HC (120° groove)	Std, 010		
			5M7299HXC (120° groove)	Std		
Chev 366, 396, 402, 427 454 ci V8 Big Block	8B743HC	Std	5M829HC	Std		
	8B743HXC	Std	5M829HXC	Std		
Ford 302/351ci Cleveland V8	8B927HC	Std	5M1010HC	Std, 001, 010		
			5M1010HXC	Std		
Ford 4.0L & 4.0L Turbo Inline 6 (AU, BA, BF, FG) (Ford Australia)	6B2150HC	Std,001,010	7M2092HC (180° Thrust Set)	Std, 001, 010		
	6B2150HXC	Std	7M2092HXC	Std		
			7M2094HC (360° Thrust Set)	Std, 001, 010		
			7M2094HXC	Std		
Holden 253ci, 4.9L, 308ci, 5.7L V8 Red, Blue, Black	8B2356HC	Std,010	5M2357HC	Std, 010	5C5146C (cam set)	Std
	8B2356HXC	Std	5M2357HXC	Std		
Honda/Acura K20A2 / K20Z1 / K24A / K24Z1 1998cc / 2354cc Inline 4	4B1972HC	Std,.025,.25	5M1959HC	Std, .025, .25	1T1957C	Std
	4B1972HXC	Std	5M1959HXC	Std		
Honda K20C1 (Type R, 2015 on) 1988cc Turbo Inline 4	4B1972HC	Std,.025,.25			1T1957C	Std
	4B1972HXC	Std				
Mitsubishi 4G63/4G63T/4G64 (1992-97 with flange main)	4B1185HC	Std,.025,.25	5M1186HC	Std, .025, .25		
	4B1185HXC	Std	5M1186HXC	Std		
Mitsubishi 4G63/4G63T/4G64 (1997 on with T/W)	4B1185HC	Std,.025,.25	5M1219HC	Std, .025, .25	1T1219C	Std
	4B1185HXC	Std	5M1219HXC	Std		
Mitsubishi 4B11T (EVO X) Lancer Evolution 2.0L Inline 4	4B1236HC	Std,.025,.25	5M1237HC	Std, .025, .25	1T1237C	Std
	4B1236HXC	Std	5M1237HXC	Std		
Nissan RB25DE, RB25DETT 2.5L Inline 6	6B2960HC	Std,.25	7M2394HC	Std, .25		
	6B2960HXC	Std	7M2394HXC	Std		
Nissan RB26DETT 2.6L Inline 6	6B2960HC	Std,.25	7M2428HC	Std, .25		
	6B2960HXC	Std	7M2428HXC	Std		
Nissan RB30/RB30ET 3.0L Inline 6	6B2390HC	Std,.025,.25	7M2394HC	Std, .025, .25		
	6B2390HXC	Std	7M2394HXC	Std		
Nissan SR20DE/DET (non GTiR) 2.0L Inline 4	4B2960HC	Std,.025,.25	5M2964HC	Std, .25	1T2964C	Std
	4B2960HXC	Std	5M2964HXC	Std		
Subaru EJ18/EJ20/EJ22/EJ25 EJ20T/EJ20TT/EJ22T/EJ25T Turbo/Twin Turbo 1820cc/1994cc/2212cc/2457cc H4	4B8296HC (suits 52 mm journal size)	Std,.025,.25	5M8309HC (for thrust in #5 position)	Std, .025, .25		
	4B8296HXC	Std	5M8309HXC	Std		
Toyota/Lexus 1JZGE/1JZGTE 2492cc 2JZGE/2JZGTE 2997cc Inline 6	6B8100HC	Std,.25	7M8103HC	Std, .25	2T8103C	Std
	6B8100HXC	Std	7M8103HXC	Std		
VW 1595cc,1781cc (incl. Turbo),1984cc,1998cc Polo, Caddy, Golf, Jetta, Passat (1983-2003)	4B1606HC	Std, .025, .25,	5M1644HC	Std, .25	2T1644C	Std
	4B1606HXC	Std	5M1644HXC	Std		

PRIOR TO GRINDING YOUR CRANKSHAFT, WE STRONGLY RECOMMEND YOU CHECK THE AVAILABILITY OF THE REQUIRED UNDERSIZE WITH YOUR LOCAL DISTRIBUTOR.

CALICO COATINGS®
The Performance Advantage.

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YOUR ENGINE BEARING STOCKIST

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