

CASE STUDY 55

(NEW GENERATION SYNTHETIC COOLANT FOR GRINDING)



CUSTOMER DETAILS:

One of the quality driven organization in Rajasthan manufacturing a wide range of ultra-precision taper rollers for bearings.



OBJECTIVES FOR CONDUCTING THE TRIAL

- a. Need to achieve the required finish & performance.
- b. No EHS issues Operator & environmental friendly.
- c. To reduce the cost of oil.
- d. Import substitute



OPERATING / APPLICATION DETAILS:

Machine: Modler

2. Tank capacity: 6000 litres

3. Part: Roller (Bearing), diameter - 5 to 25mm,

length 11 to 50 mm, angle 1.5°C to 8.5°C

4. Material: Bearing steel- SAE 52100

5. Application: Grinding

6. Steps: 03: (Rough - Semi - Finish) Grinding

9. Wheel: For rough rubber bonded (carborundum)

& for finish resin bond imported

10. Filtration: Magnetic conveyor + paper band

11. Initial loading: 6000 litres tank

12. Chiller unit: Yes

13. Grinding stage: 3 stages

14. Depth of grinding & RA:

Particular	Rough Grinding	Finish Grinding
Allowance	300 μ	50 μ
R A Limit	0.8 μ	0.1 μ
R A Achieved	0.7 μ	0.05 μ



COMPONENT VIEW



KANSARA MODLER LIMITED, INDIA An Indo-German Joint Venture



Dase: 28-Nov-19

HardCastle Petrofer Pvt. Ltd.

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Kind Assention: Mr. Devendra Singl

Subject: Satisfactory Performance of Hardcastle Coolant ISO COOL 1020 BF

We have been using Hardcarde Coolant ISOCOOL 1020 BF on our Modler Grinding Line for Taper Rollers. We are pleased to export that the coolant is performingsatisfactorily since July 2019. The consumption and flushing properties are well within the limits.

Kind Regards



Naveen Kansara



PRODUCT RECOMMENDED: ISOCOOL 1020 BF

TRIAL RESULTS



Trial evaluation with the period of 5 months





Achieved required Ra



On time availability of indigenous product



No EHS issues observed - Operator & environmental friendly



Direct cost saving ~35%