



**PT. SENTOSA METALURGI INDOMAS**

**INDONESIA**



**SENTOSA METALURGI  
I N D O M A S**



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# PT. Sentosa Metalurgi Indomas



“ PT. Sentosa Metalurgi Indomas is a company dealing with ferrous and non ferrous foundry business.

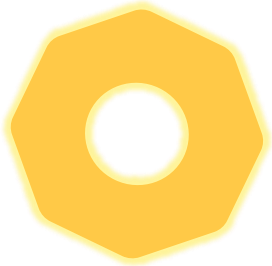
Our business lines are complete range chemicals for metals melt treatment, alloying material, master alloy, dielubricants for aluminium, crucible, abrasive material, bentonite, seacoal, refractory material for ferrous & non-ferrous foundry.

Since 2007 our team are expertise in Metallurgical & Material Engineering background, and supported by well known and experience principals.

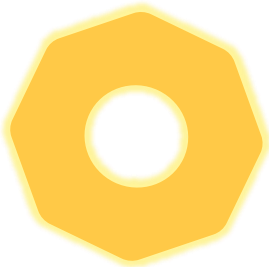
Exclusive distributor aluminium product for Hoesch Metallurgie GmbH-Germany, crucible distributor for Corona Cadinhos Crucible-Brazil, aluminium dielubricant distributor agent for Randocast 98Oils – Thailand, sole agent distributor for Rudransh Industrie – India.

”

# PT. WIKA IKON



WIKA IKON is automotive industry ecosystem in Indonesia and at international level and produce automotive components for motorcycles, passenger cars, and trucks using advanced technology from casting, machining, to assembly



WIKA IKON fully supports the development of GESITS electric motorcycle product technology, which has been developed domestically by Indonesian citizens, the source of pride of the nation.

# Casting part for 2 wheels



**Handle Pylon Black**



**Handle Pylon Red**



**Handle Seat L/R**

# Casting part for 4 Wheels

Bracket Mirror



Cover oil Pump



Housing Sub Assy Water  
Outlet EW020

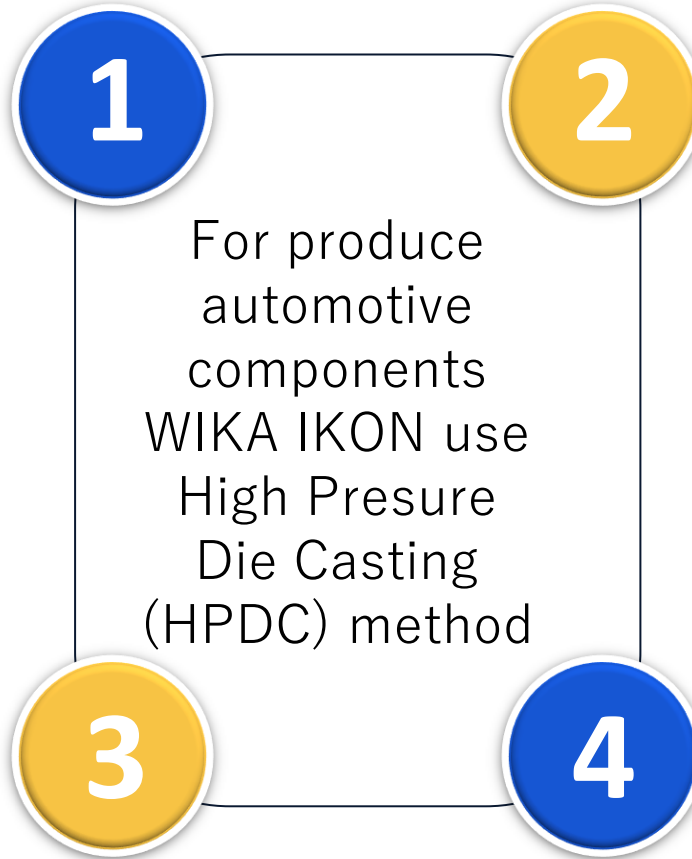


## Attention

In HPDC method, we need release agent chemicals to prevent other materials from bonding to surfaces. It can provide a solution in process involving mold release, die cast release

## Case

Now, WIKA IKON used die lubricant from Petrofer 5040 (water base) with manual spray method



## Problem

The problem from Petrofer is any cracked and scratch at the part and the price is expensive

## Action

So WIKA IKON need comparison from other brand to get the good efficiency

# Competitor Lab Report



Metal Working Fluids Analysis for Predictive Maintenance & Full Efficiency



## Sample Information ;

Report Number.:	RCCOM24G002	Date Sample :	25/6/2024
Sample Name :	Petrofer 5040	Date Issued :	10/7/2024
Customer Name :	PT. WIKA		

## Analysis Report ;

Test Criteria	Test Method	Test Report		
		Petrofer 5040		
Appearance		 White		
Film Layer	Visual	 Pale yellow stain		
% solid content		10,44%		

## Suggestion and Recommendation ;

RCCOM24G002	

Laboratory Signature:	Realita Mayaperdana	Date :	10/7/2024
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Die Lubricant mold :  
**PETROFER 5040**



# MONITORING LAB REPORT


Water Analysis for Predictive Maintenance & Full Efficiency



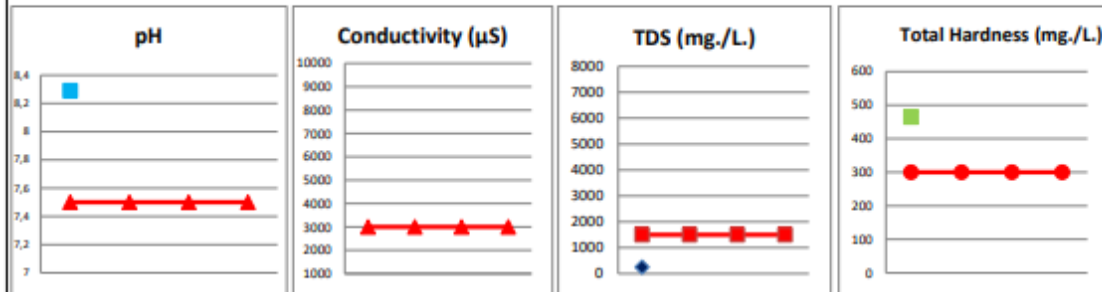
## Sample Information :

Report Number.:	WT24F334
Company :	PT. Wijaya Karya (Wika)
Address :	
Contact Person :	
Sample Name :	Raw Water
Machine :	-
Date Sample :	25/06/2024
Date Received :	28/06/2024

## Analysis Report :

Test Criteria	Test Method	Unit	Specification	Test Reported			
				WT24F334 (25/06/24)			
Appearance	Observation						
pH	pH Meter	-	6,5-7,5	8,29			
Conductivity	Conductivity Meter	$\mu\text{S}$	< 3000	375			
Total Dissolve Solids	Electrometric	mg./L.	< 1,500	253			
Total Hardness	EDTA-Titrimetric	mg./L.as CaCO <sub>3</sub>	< 300	465			

# Water Analysis WIKA IKON



## Suggestion and Recommendation :

WT24F334	Hardness air melebihi standar spesifikasi.

Water hardness  
is more than  
**Standart.**

## RANDOCAST A506

Water soluble lubricant for Aluminium die-casting

### Descriptions:

*RANDOCAST A506* is a water-soluble release agent for aluminium die casting. This product is formulated for highly demanding dies, specially those of the automotive industry.

*RANDOCAST A506* will not leave any residue, neither on the die nor the piece, which will stay bright. Contains wetting agent components to improve film formation of the release agent on the die. The product is additive to improve performance in hard water and avoid problems of nozzle blockage.

### Applications:

*RANDOCAST A506* can be applied by pistol-spray or automatic spray. The recommended dilution ratio with water is from 1:100 to 1:400, always depending on the size and difficulty of the piece.

### Benefits:

- Specially recommended in pieces with high temperature spots or massive areas.
- Doesn't leave residues on dies or pieces.
- Clean: bright surface of the piece.
- Excellent ejector pin lubrication.
- Low smoke emission.
- Low COD (chemical oxygen demand) of the residues.

### Typical Physical Properties:

Properties	Randocast A506
Appearance	White Emulsion Liquid
Color	White
Solid content (%)	20 - 25
pH	7 - 11
Density at 25°C	0.900 - 1.03

### Package:

Pack in plastic pail 18 liters and steel drum 200 liters.

### Shelf Life:

In the factory sealed condition has a shelf life of 6 months.

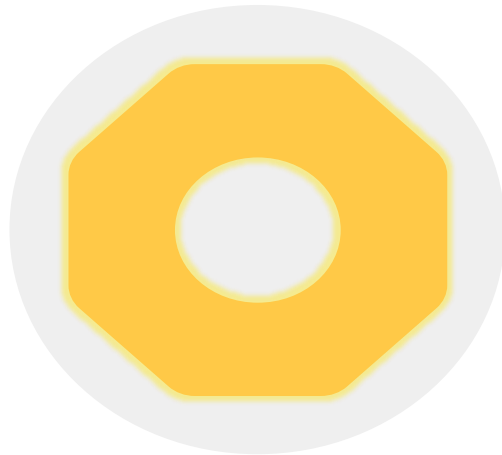
### Storage:

Products should be stored on their sides in a clean, dry place and protected from extremes of sunlight.





Suggest  
RANDOCAST A506  
for trial

# TRIAL DIE LUBRICANT RANDOCAST A506

- 
- Die lubricant Randocast A506 tried on **bracket mirror** product, with ratio dilution **1:100** ( **die lubricant : water**)
  - The dilution ratio between die lubricant and water is, **2 liter die lubricant : 200 liter water**
  - Water tank capacity is 200 liter



# TRIAL RESULT

No	Item	Petrofer 5040 (Existing)	Randocast A506
1	Product type	Bracket Mirror	Bracket Mirror
2	Ratio Dilution	1:100	1:100
3	Needs/month	600Liter/month	600Liter/month
4	Price/Liter	Expensive	28% Cheeper than petrofer 5040
5	Trial picture result		
6	Trial result	<ul style="list-style-type: none"> <li>- There is any crack in the pin core</li> <li>- There are wrinkles between the ride cores</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Bright and shiny parts</b></li> <li>- There are no cracks in the pin core</li> <li>- There are no wrinkles between the ride core</li> </ul>

# HIGHLIGHT POINT

User said that Randocast A506 can made a bright & shiny visual than existing.

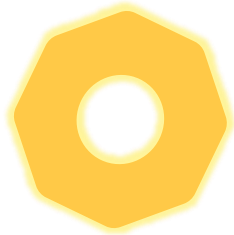


In a month, Randocast A506 can made an efficient cost of monthly need is 28% with application in bracket mirror per machine diecasting.

Randocast A506 made the producing of bracket mirror become minim reject/NG. Especially, no cracks in the pin core and no wrinkles between the ride core



# PT. Cikarang Perkasa Mfg



**Manufacturer of automotive components and high precision parts.**

**Specialized in Aluminium Die Cast Products for Automobiles and Motorcycles**



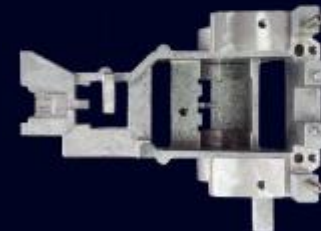
**CASE COMP, THERMOSTAT**



**COVER LW**



**COVER GEAR CASE (4JB-1)**



**CARRIAGE LOTUS 2**



**HOLDER 9740 / 9760**



**STEERING SHAFT BASE**

## Attention

In HPDC method, they have product that produce from simple-complex design of mold & small-big size of mold s.

## Case

CPM's want dielubricant Randocast A506 trial with their simple design mold that produced every week in a month with different ratio dilution with existing (Moresco Graphace)



## Problem

The problem, they want to efficient used of dielubricant & efficient cost.

Also, have problem with diecast mold that easy to get dirty. So, need extra maintenance (time & effort to clean)

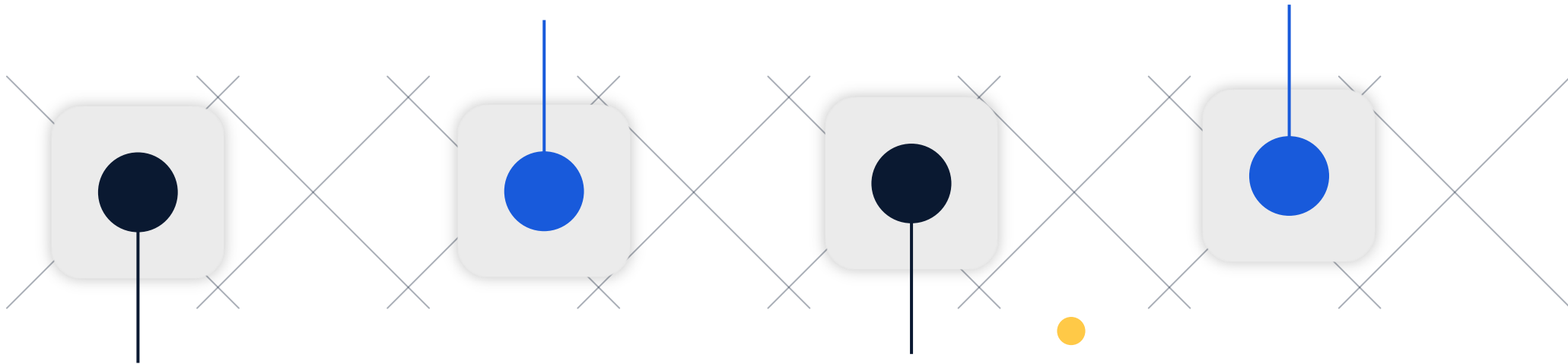
## Action

So, user request for use ratio dielution **1 : 160** to dielubricant Randocast A506.

# TRIAL PREPARATION

Trial product with :  
**Housing 1W**

User (PIC of Diecasting PT. Cikarang Perkasa Mfg) prediction can used in **14 shift** with **ratio dieelution 1 : 160**



Dielubricant trial with :  
**Randocast A506**  
**(20 liter/pail)**

1 month work (days) = 6 days/week (26 days/month)

Monday – Friday = 3 shift → 22 days of work X 3 shift = 66 shift

Saturday = 2 shift → 4 days of work X 2 shift = 8 shift

Total shift in month = 66 shift + 8 shift = **74 shift/month\***

**\*Assumed to be in production conditions without “off” shift in a month**



# ACTUAL TRIAL DIE LUBRICANT

Total actual shift when trial of A506 randocast is 11 shift for 20 liter ( 1 pail)

Thursday : 3 shift

Friday : 2 shift

Saturday : 2 shift

Monday : 3 shift

Tuesday : 1 shift

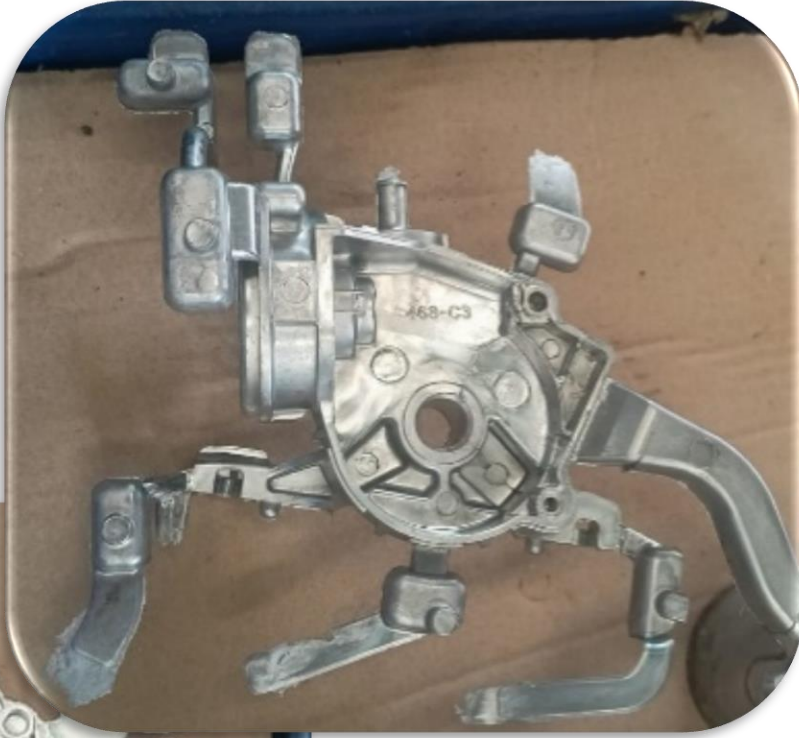
The water tank qty (actual) : 180 liter  
Keep use ratio dilution **1 : 160** as **bench mark**  
Randocast sample trial is 20 liter  
**So, the actual ratio dilution is**  
**1.125 : 180**

While using Randocast A506, the Housing -1W type that trial had a matter of same percentage (%) or minor NG type likes existing die lubricant.

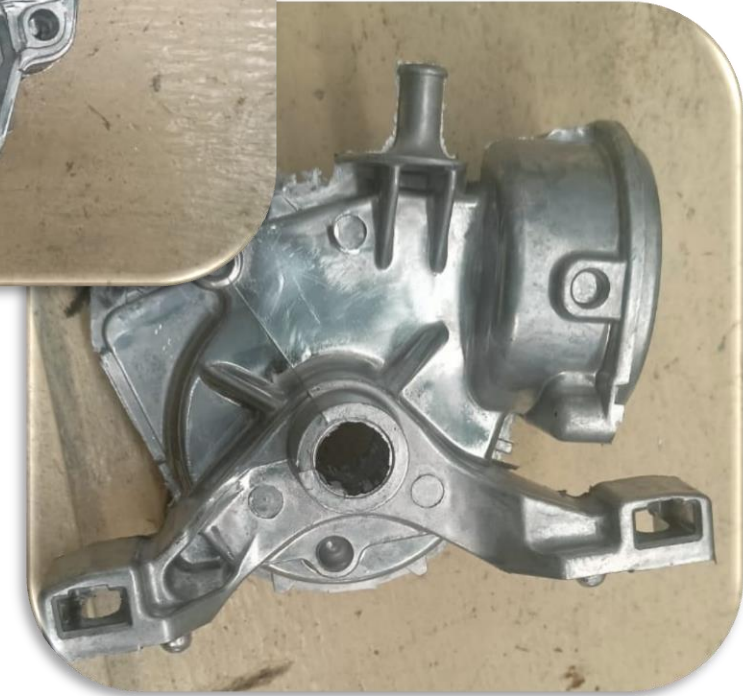
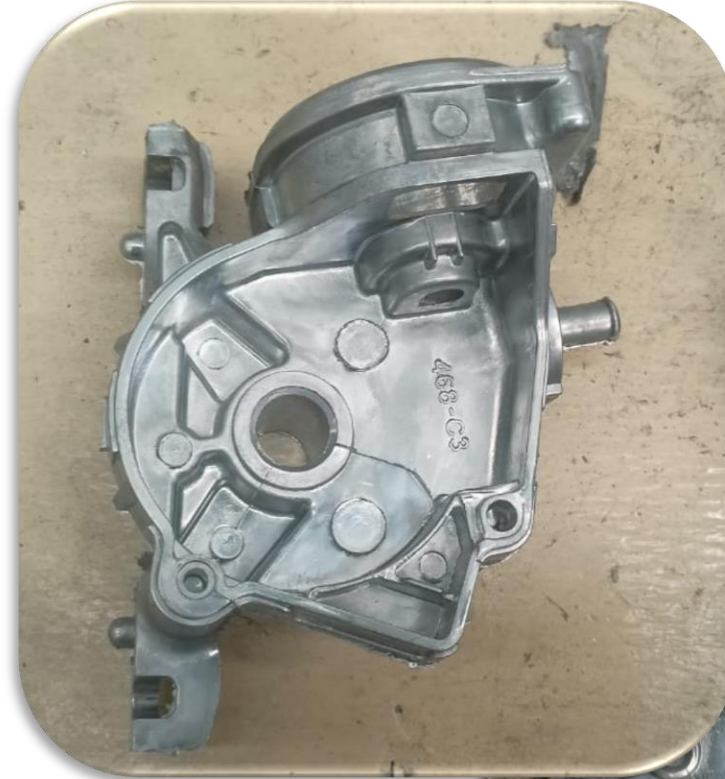
No	Item	Moresco Graphage (existing)	Randocast A506
1	Product Dies Casting	Housing-1 W type (Denso product)	Housing-1 W type (Denso product)
2	Ratio Dilution ( <b>bench mark</b> )	<b>1 : 80</b>	<b>1: 160</b>
3	Actual application	2.25 liter (dielube) : 180 liter (water)	1.125 liter (dielube) : 180 liter (water)
4	Used 1 pail/machine diecasting	<b>7 shift</b>	<b>11 shift</b>
5	Monthly need for 1 machine diecasting to operational (pail)	74 shift ( production a month without off) : 7 shift = <b>11 pail</b> for Housing-1 W type / machine diecasting	74 shift ( production a month without off) : 11 shift = <b>7 pail</b> for Housing-1 W type / machine diecasting
6	Monthly need for 1 machine diecasting to operational (liter)	11 pail x 18 liter/pail = <b>198 liter/</b> month for Housing -1 W	7 pail x 18 liter/pail = <b>126 liter/</b> month for Housing -1 W

# RESULT PRODUCT OF HOUSING-1W

**Randocast  
A506**



**Moresco  
Graphage  
(existing)**



# HIGHLIGHT POINT

In a month, Randocast A506 can made an efficient using of monthly need in 72 liter than existing

In a month, Randocast A506 can made an efficient cost of monthly need with percentage is 29% in housing-1W per machine diecasting.

Customer can used ratio dielution 2 times more efficient than existing with application in housing-1W per machine diecasting

The visual product become bright than using existing die lubricant





👍 Thank You 👍

