

# FRC Global

## Ladle Refractories





**Expert Teams.**



**Quality Products.**



**Global Networks.**

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## Who We Are

FRC Global is a leading supplier of refractories, electrodes, and high temperature combustion systems. FRC Global provides outstanding results for our clients within the iron, steel, and non-ferrous industries. Our company's reputation is built by delivering high quality products made with premium raw materials. We are more global now than ever before.

We give you a competitive advantage by offering you superior proven products that positively impact your bottom line and perform better. Our knowledgeable engineers ensure the proper application of our products to give you the maximum level of output and safety.

With over 25 warehouse facilities in the United States, Canada, Mexico, and South America we assure your products are readily available when you need them in these regions.

**Through the use of vast global resources, all of us at FRC Global are committed to being the value creators and problem solvers for our industry.**



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## Our Mission

Embrace modern technology to increase innovation, efficiency, and transparency. Inspire the next generation by driving change, promoting curiosity, and shaping sustainable solutions in the high temp world.





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# About Us

## Background Information

FRC Global is a second generation family owned company with a 30-year history.

## Global Offices

**FRC Global has offices, agents, or partners in 20 countries around the world.**

- North America: United States and Canada
- South America: Colombia
- Asia: China

We provide quality engineered products and services for all your high temperature applications.

## FRC Global facts

Our quality control employees thoroughly inspect shipments to ensure products are within specification and are properly packaged.

**Sales force and service needs are available in the following:**

- North America
- Central America
- South America
- Europe
- Middle East



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# Why FRC Global?

## We show up for high-temp potential.

For over three decades, we have built strong partnerships by living up to our reputation of showing up for our customers. Our team is made up of hard-working people—many who have been in your shoes and understand the challenges you face. We are constantly thinking ahead, anticipating new barriers, and providing better solutions.

Our team knows that no two challenges are the same. When we show up to understand you and your operation, we study it to ensure we propose solutions, not just products.

As a company full of dedicated product managers and meticulous quality control teams, we travel around the

world to produce high-end products from only the best raw materials. With seasoned engineers on staff, we identify opportunities for performance and production improvements.

We are committed to excellence. Our strong relationships with global enterprises—primarily in strategic raw materials—ensure availability, performance, and consistent high quality. Our vast network serves as a cornerstone in our ability to deliver results on a global scale.

As proactive problem-solvers, we see your challenges as our own and look forward to achieving your project's greatest potential.



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# Providing Solutions

## Providing high temperature solutions for your ladle

- We are positioned to supply all of your refractory requirements in this area.
- We offer brick in magnesia-carbon, magnesia-alumina carbon, alumina-magnesia-carbon, dolomite and burned alumina as necessary.
- We supply a full range of un-formed specialties, as well as pre-cast shapes to complete your installation.
- Our plants are ISO 9001 certified and own/control their raw material feedstocks.

## Understanding your needs

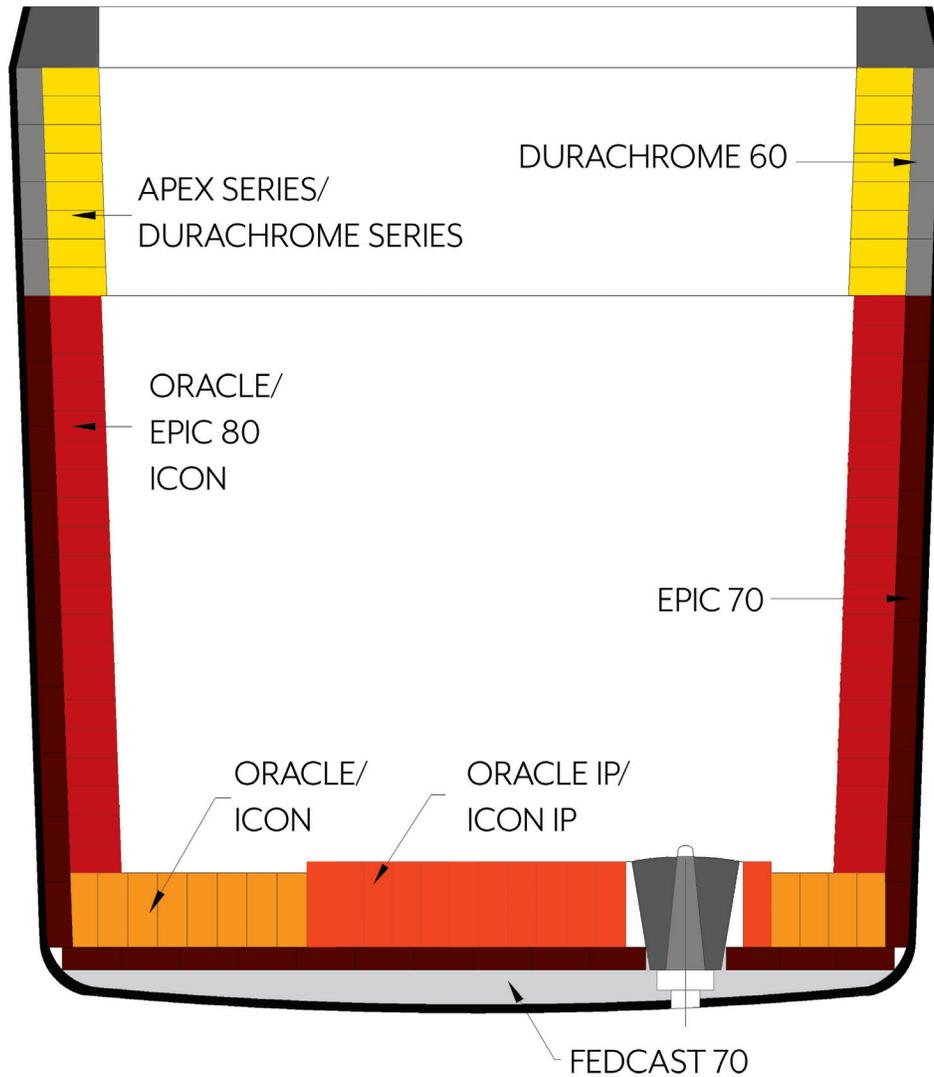
- We are your answer to ladle availability and refractory cost per ton of metal produced.
- We provide reliable and consistent refractory supply, and the most advanced ladle refractories the world has to offer.
- Our company delivers excellent service before, during and after the brick is installed.

# Products

Product	Chemical analysis % by weight approximate									B. Density g/cm <sup>3</sup>	CCS psi	App. Por. %	Car- bon %
	MgO	Cr <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	SiO <sub>2</sub>	ZrO <sub>2</sub>	TiO <sub>2</sub>	Alka- lies				
<b>Ladle/Furnace Brick, single &amp; dual metallic available magnesite portion   any carbon available upon request</b>													
<b>Apex® 8</b>	97.6	---	0.2	0.2	1.4	0.6	---	---	---	3.01	>4000	-2.0	---
<b>Apex® 7</b>	97.1	---	0.2	0.3	1.8	0.6	---	---	---	2.96	>3800	-3.0	---
<b>Apex® 6</b>	96.0	---	0.5	0.7	1.9	0.9	---	---	---	2.88	>3800	-3.0	---
<b>Apex® 5</b>	95.0	---	0.2	1.9	2.4	0.6	---	---	---	2.85	>3200	-3.0	---
<b>Dolomite – Fired</b>													
<b>Paragon® D</b>	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.80	5000	18.0	---
<b>Paragon® Dbz</b>	>35	---	<1.5	<1	<59	<1.5	3.0	---	---	2.85	5000	20.0	---
<b>Paragon® Md3</b>	52	---	<1.5	<1	45	<1.5	---	---	---	2.87	5000	17.0	---
<b>Paragon® Md50</b>	66	---	<1.5	<1	31	<1.5	---	---	---	2.90	5000	18.0	---
<b>Paragon® Mdz</b>	52	---	<1.5	<1	45	<1.5	3.0	---	---	2.98	6000	160.0	---
<b>Dolomite – Resin Bonded</b>													
<b>Paragon® Rd</b>	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.98	6000	14.0	1
<b>Paragon® Rd3C</b>	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.96	5000	12.5	4
<b>Paragon® Rd6C</b>	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.95	4000	12.0	6.5
<b>High Alumina</b>													
<b>Epic® 60</b>	---	---	58.0	1.3	---	36.0	---	3.0	0.4	2.50	8000	16.0	---
<b>Epic® 70</b>	---	---	65.0	1.4	---	23.5	---	2.3	0.2	2.60	9000	18.0	---
<b>Epic® 80</b>	---	---	80.0	1.2	---	16.6	---	3.5	0.1	2.70	10000	20.0	---
<b>Epic® 85</b>	---	---	85.0	1.7	---	12.0	---	3.2	0.2	2.80	10145	20.0	---
<b>Epic® 90</b>	---	---	90.0	0.4	---	8.9	---	0.7	trace	2.90	17391	18.0	---
<b>Magnesia Chrome Brick</b>													
<b>Durachrome® 50</b>	55.0	18.1	14.3	8.9	0.7	2.8	---	---	---	3.09	5797	17.5	---
<b>Durachrome® 60</b>	62.0	17.0	8.2	10.2	1.5	1.1	---	---	---	3.08	5507	17.0	---
<b>Durachrome® Fg20</b>	61.0	19.0	6.8	12.0	0.7	0.5	---	---	---	3.18	8696	15.0	---
<b>Durachrome® Fg50</b>	58.0	20.0	6.9	13.0	0.5	0.5	---	---	---	3.20	10145	13.0	---
<b>Durachrome® Fg100</b>	59.0	20.0	7.3	10.5	0.9	2.1	---	---	---	3.30	9276	13.3	---
<b>Alumina Mag Carbon Brick</b>													
<b>Oracle®</b>	10.0	---	78.0	---	---	7.0	---	---	---	2.90	8000	5.0	5.0
<b>Oracle® Ip</b>	10.0	---	80.0	---	---	5.0	---	---	---	3.20	12000	4.0	5.0
<b>Magnesia Alumina Carbon</b>													
<b>Icon</b>	78.0	---	10.0	---	---	---	---	---	---	3.00	>8000	<5%	7.0
<b>Icon Ip</b>	78.0	---	10.0	---	---	---	---	---	---	3.00	>8000	<5%	7.0

# Aluminum—Killed Casting

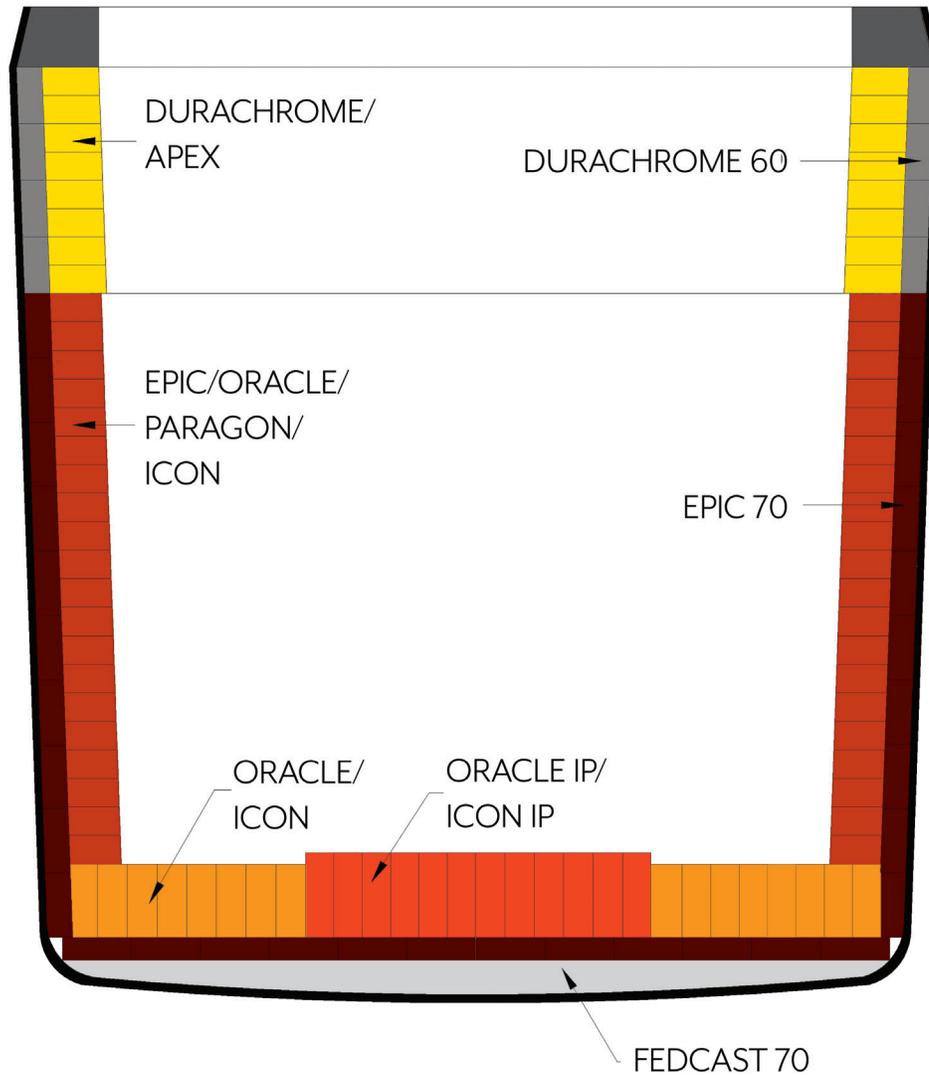
**APEX SERIES — LMFs, VODs, VADs**  
**DURACHROME — NON LMF APPLICATIONS**



	Acid Slag	Basic Slag
<b>Slag Line</b>	Durachrome	Apex
<b>Barrel</b>	Epic/Oracle/Icon	Oracle
<b>Bottom</b>	Oracle/Icon/Icon IP	Oracle

# Stainless Transfer Ladle

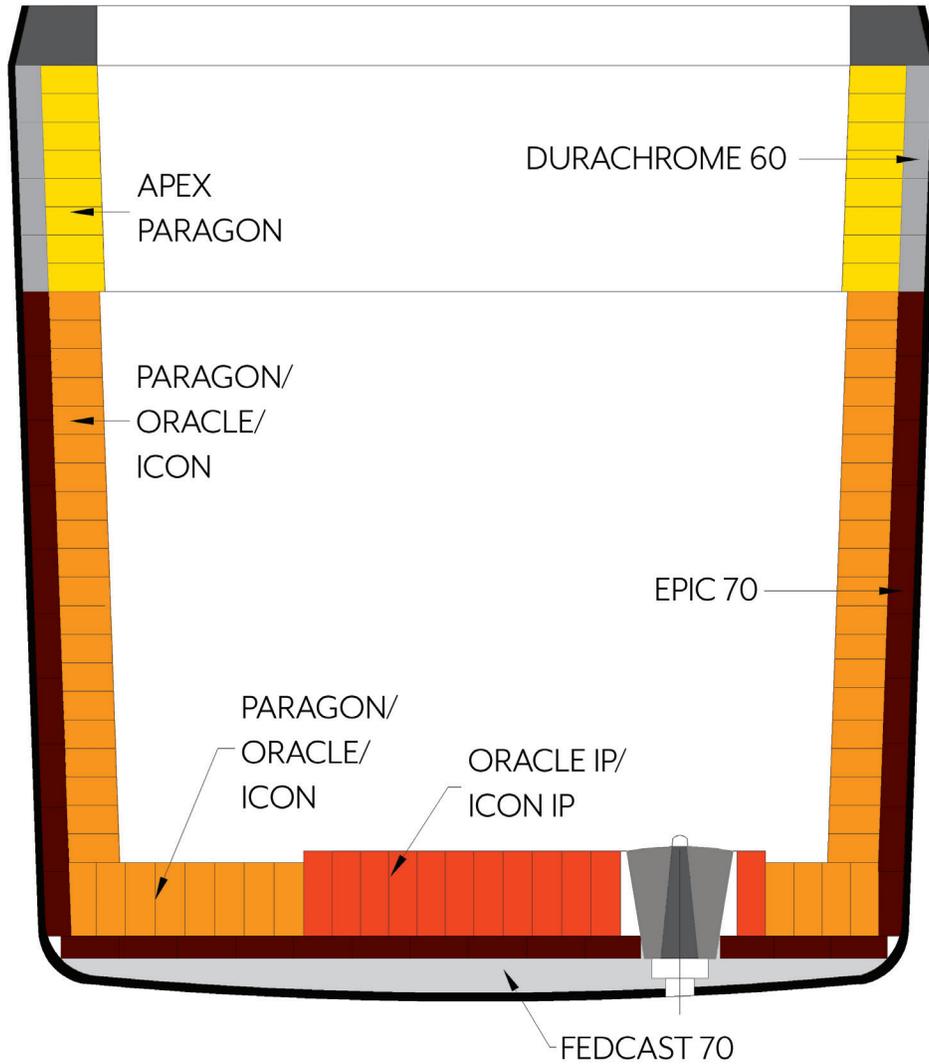
**APEX SERIES — LMFs, VODs, VADs**  
**DURACHROME — NON LMF APPLICATIONS**



	Acid Slag	Basic Slag
<b>Slag Line</b>	Durachrome/Apex	Durachrome/Apex
<b>Barrel</b>	Epic/Oracle/Icon	Paragon
<b>Bottom</b>	Oracle/Icon/Icon IP	Oracle

# Silicon Killed Casting Ladle

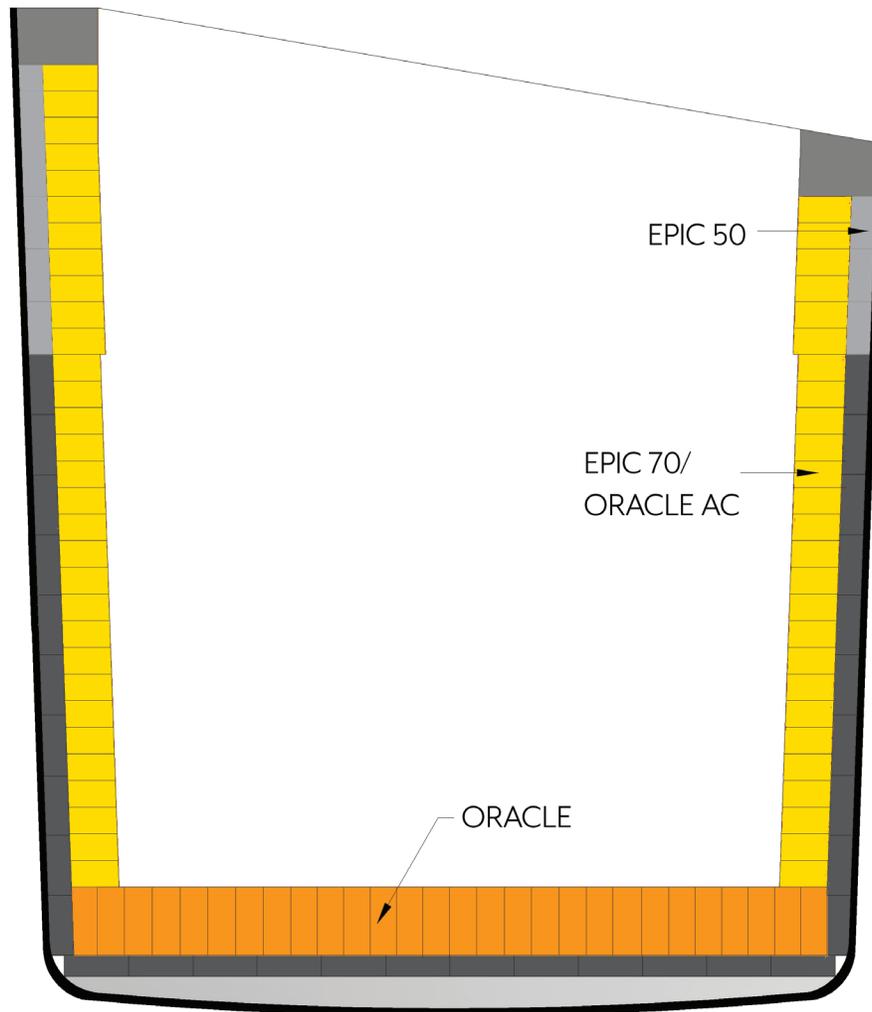
**APEX SERIES — LMFs, VODs, VADs**  
**DURACHROME — LMFs & NON-LMFs**



	Acid Slag	Basic Slag
<b>Slag Line</b>	Apex	Paragon
<b>Barrel</b>	Oracle/Icon	Paragon
<b>Bottom</b>	Oracle/Icon/Icon IP	Paragon/Oracle

# Iron Transfer Ladle

Castables Available for Sprayable  
Repair of Iron Ladle Working Lining





# High Temp Innovation

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## Canada

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## South America

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