

FRC Global Ladle Refractories

Innovation

High Temp

FRC
Global

Expert Teams.

Global Networks.

Quality Products.

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.

Mission Statement

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.



About Us



Background information

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

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

Global Offices:

- ◆ 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

Why FRC Global?

Why Us

Our experts and service staff are there for you when you need it. We will be present at ladle relines and delines. We can provide a product performance report upon request.

Our goal is to study your operation, propose solutions, and ultimately lower your cost per ton of metal produced.

Global operations enable us to competitively provide all products for any area of the ladle. Additionally, FRC Global can supply equipment such as mixers and gunning apparatus as required.

Our strong relationships with global enterprises, primarily in strategic raw materials ensure availability, price stability and consistent high quality.

We have on-staff engineers, product managers and quality control teams who travel around the world to produce high-end products from only the best raw material to generate superior results for our customers.



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.

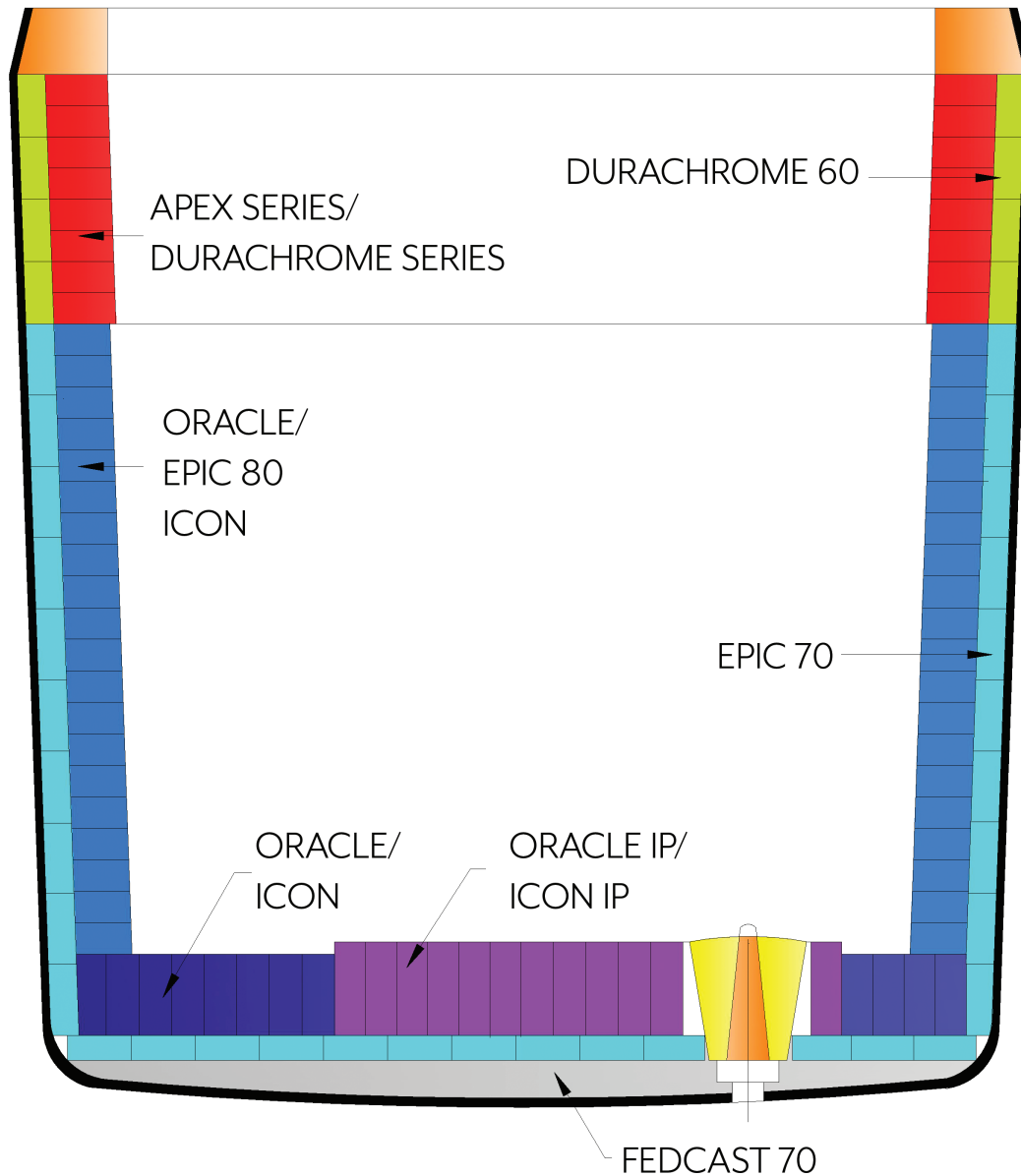
Understanding your needs

- ◆ 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 ³	CCS psi	App. Por. %	Carbon %
	MgO	Cr ₂ O ₃	Al ₂ O ₃	Fe ₂ O ₃	CaO	SiO ₂	ZrO ₂	TiO ₂	Alkalies				
Ladle/Furnace Brick, single and dual metallic available													
						magnesite portion				any carbon available upon request			
APEX® 8	97.6	---	0.2	0.2	1.4	0.6	---	---	---	3.01	>4000	~2.0	---
APEX® 7	97.1	---	0.2	0.3	1.8	0.6	---	---	---	2.96	>3800	~3.0	---
APEX® 6	96.0	---	0.5	0.7	1.9	0.9	---	---	---	2.88	>3800	~3.0	---
APEX® 5	95.0	---	0.2	1.9	2.4	0.6	---	---	---	2.85	>3200	~3.0	---
Dolomite - Fired													
PARAGON® D	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.80	5000	18.0	---
PARAGON® DBZ	>35	---	<1.5	<1	<59	<1.5	3.0	---	---	2.85	5000	20.0	---
PARAGON® MD3	52	---	<1.5	<1	45	<1.5	---	---	---	2.87	5000	17.0	---
PARAGON® MD50	66	---	<1.5	<1	31	<1.5	---	---	---	2.90	5000	18.0	---
PARAGON® MDZ	52	---	<1.5	<1	45	<1.5	3.0	---	---	2.98	6000	160.0	---
Dolomite - Resin Bonded													
PARAGON® RD	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.98	6000	14.0	1
PARAGON® RD3	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.96	5000	12.5	4
PARAGON® RD6	>36	---	<1.5	<1	<61	<1.5	---	---	---	2.95	4000	12.0	6.5
High Alumina													
EPIC® 60	---	---	58.0	1.3	---	36.0	---	3.0	0.4	2.50	8000	16.0	---
EPIC® 70	---	---	65.0	1.4	---	23.5	---	2.3	0.2	2.60	9000	18.0	---
EPIC® 80	---	---	80.0	1.2	---	16.6	---	3.5	0.1	2.70	10000	20.0	---
EPIC® 85	---	---	85.0	1.7	---	12.0	---	3.2	0.2	2.80	10145	20.0	---
EPIC® 90	---	---	90.0	0.4	---	8.9	---	0.7	trace	2.90	17391	18.0	---
Magnesia Chrome Brick													
DURACHROME® 50	55.0	18.1	14.3	8.9	0.7	2.8	---	---	---	3.09	5797	17.5	---
DURACHROME® 60	62.0	17.0	8.2	10.2	1.5	1.1	---	---	---	3.08	5507	17.0	---
DURACHROME® FG20	61.0	19.0	6.8	12.0	0.7	0.5	---	---	---	3.18	8696	15.0	---
DURACHROME® FG50	58.0	20.0	6.9	13.0	0.5	0.5	---	---	---	3.20	10145	13.0	---
DURACHROME® FG100	59.0	20.0	7.3	10.5	0.9	2.1	---	---	---	3.30	9276	13.3	---
Alumina Mag Carbon Brick													
ORACLE®	10.0	---	78.0	---	---	7.0	---	---	---	2.90	8000	5.0	5.0
ORACLE® IP	10.0	---	80.0	---	---	5.0	---	---	---	3.20	12000	4.0	5.0
Magnesia Alumina Carbon													
ICON	78.0	---	10.0	---	---	---	---	---	---	3.00	>8000	<5%	7.0
ICON IP	78.0	---	10.0	---	---	---	---	---	---	3.00	>8000	<5%	7.0

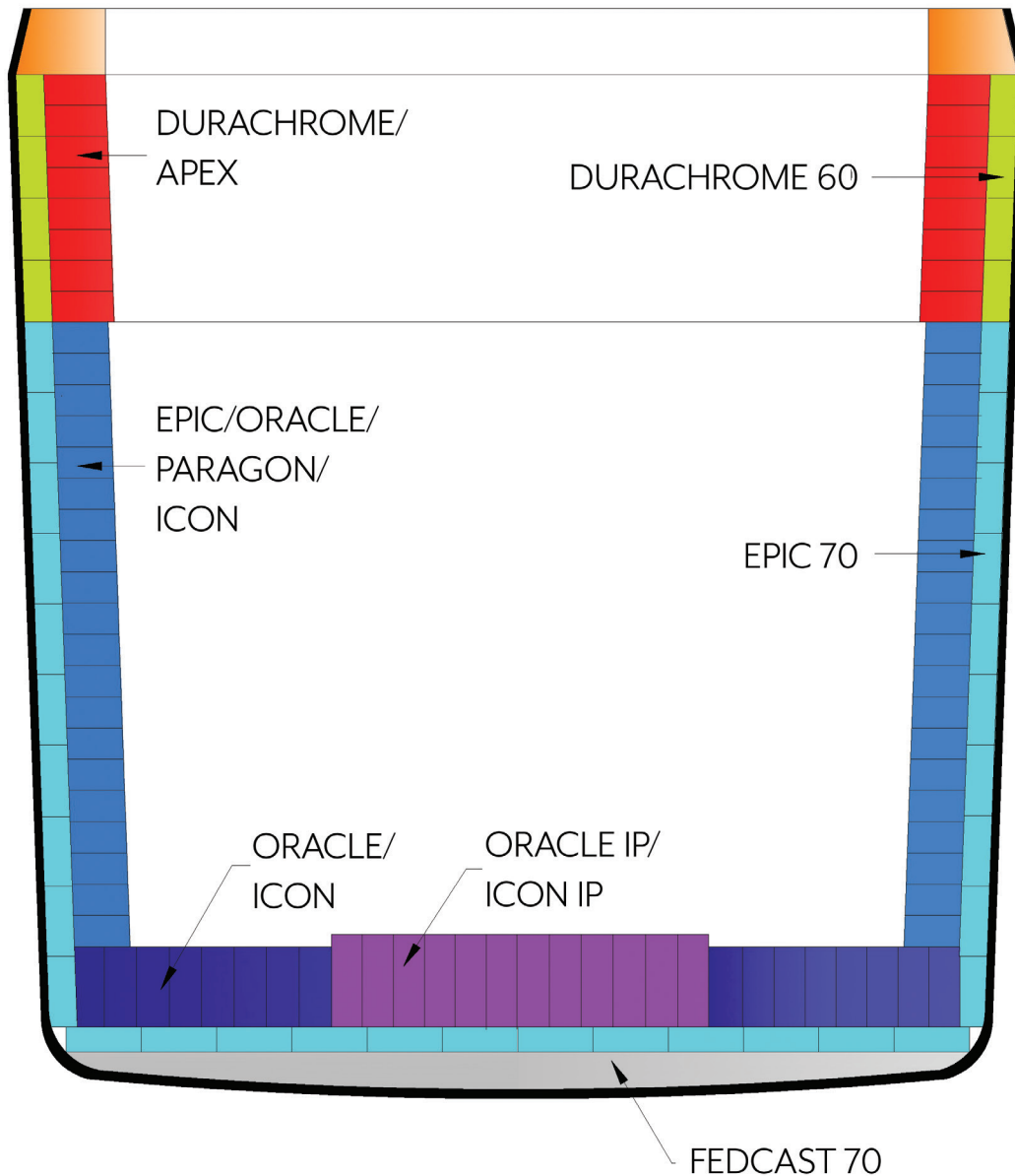
Aluminum - Killed Casting



APEX SERIES - LMFs, VODs, VADs
DURACHROME - NON LMF APPLICATIONS

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

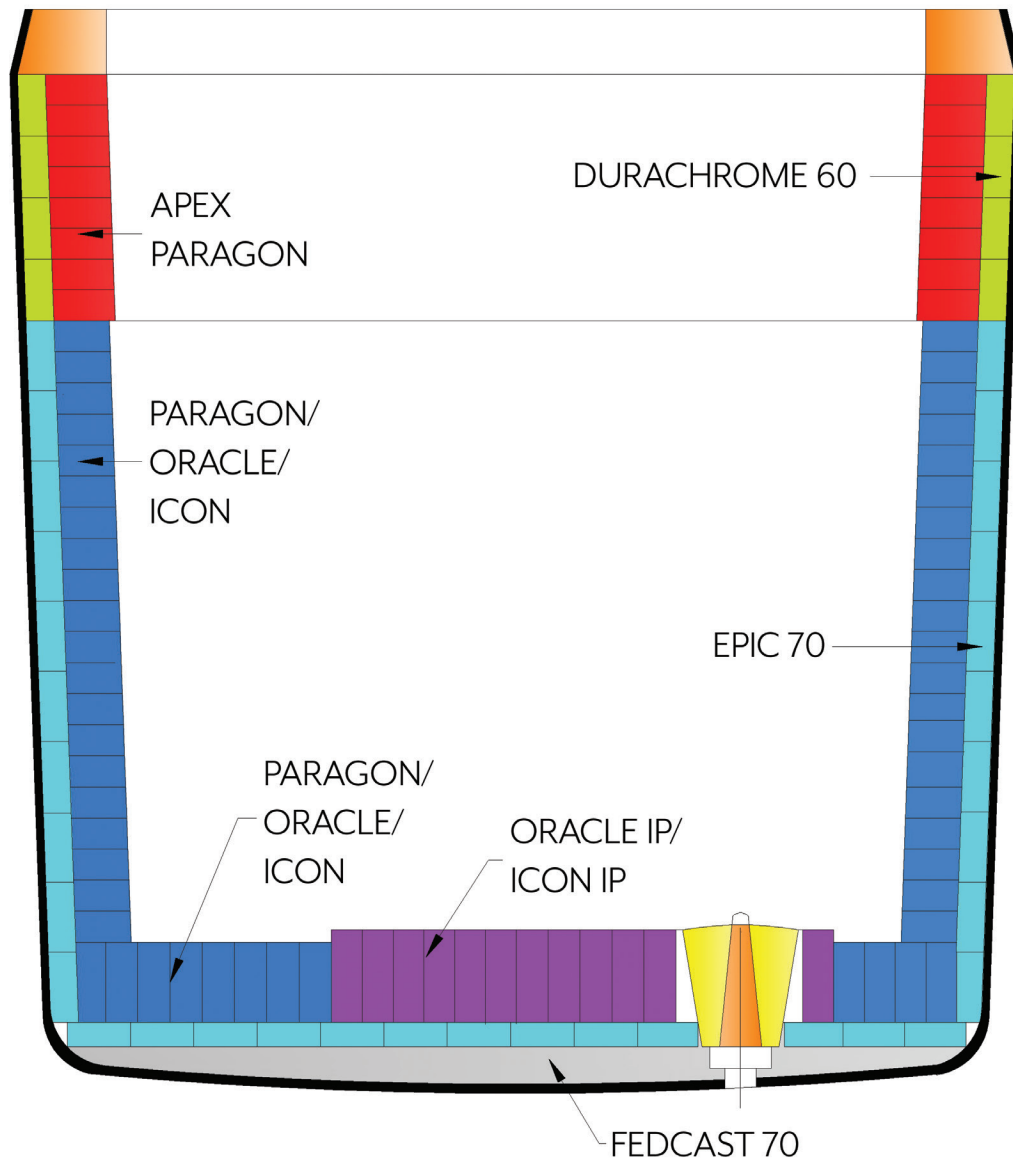
Stainless Transfer Ladle



APEX SERIES - LMFs, VODs, VADs
DURACHROME - NON LMF APPLICATIONS

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

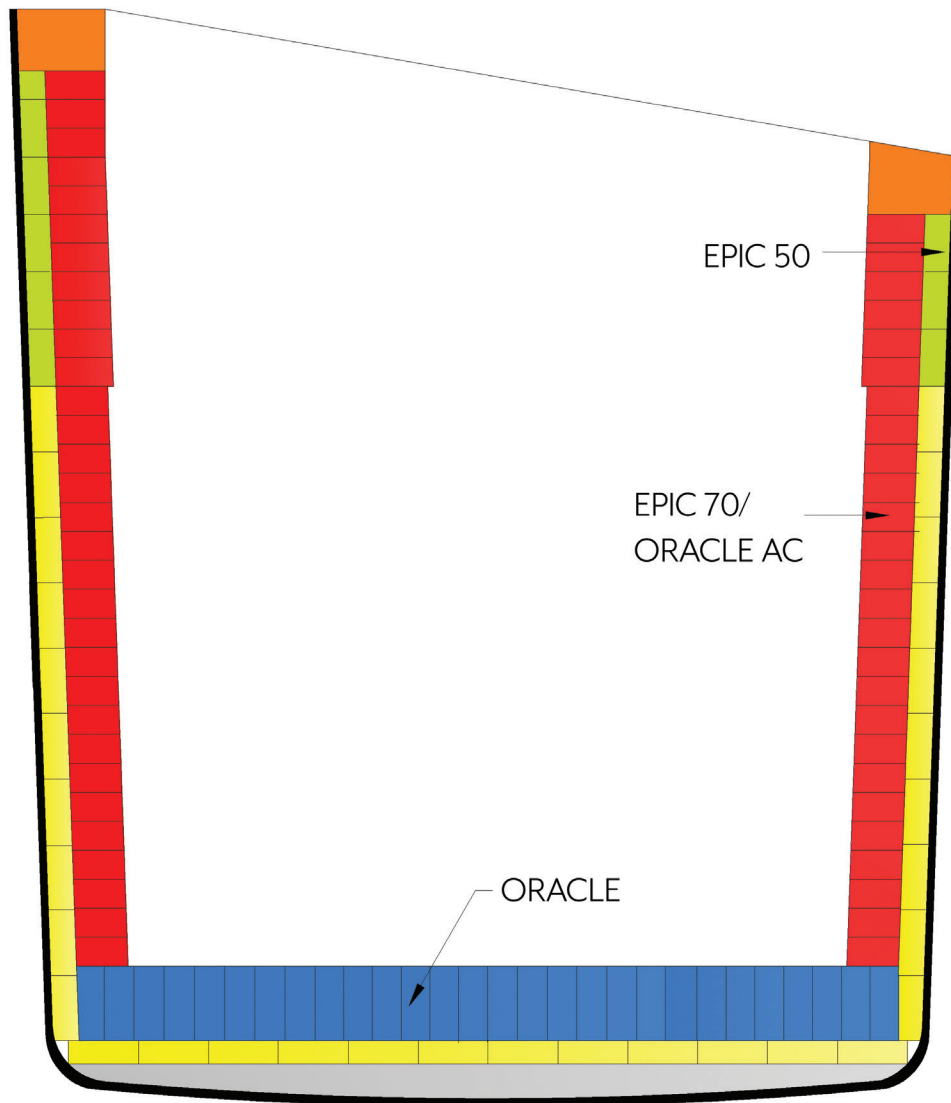
Silicon Killed Casting Ladle



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

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

Iron Transfer Ladle



**CASTABLES AVAILABLE FOR SPRAYABLE
REPAIR OF IRON LADLE WORKING LINING**

Innovation
High Temp

FRC
Global

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