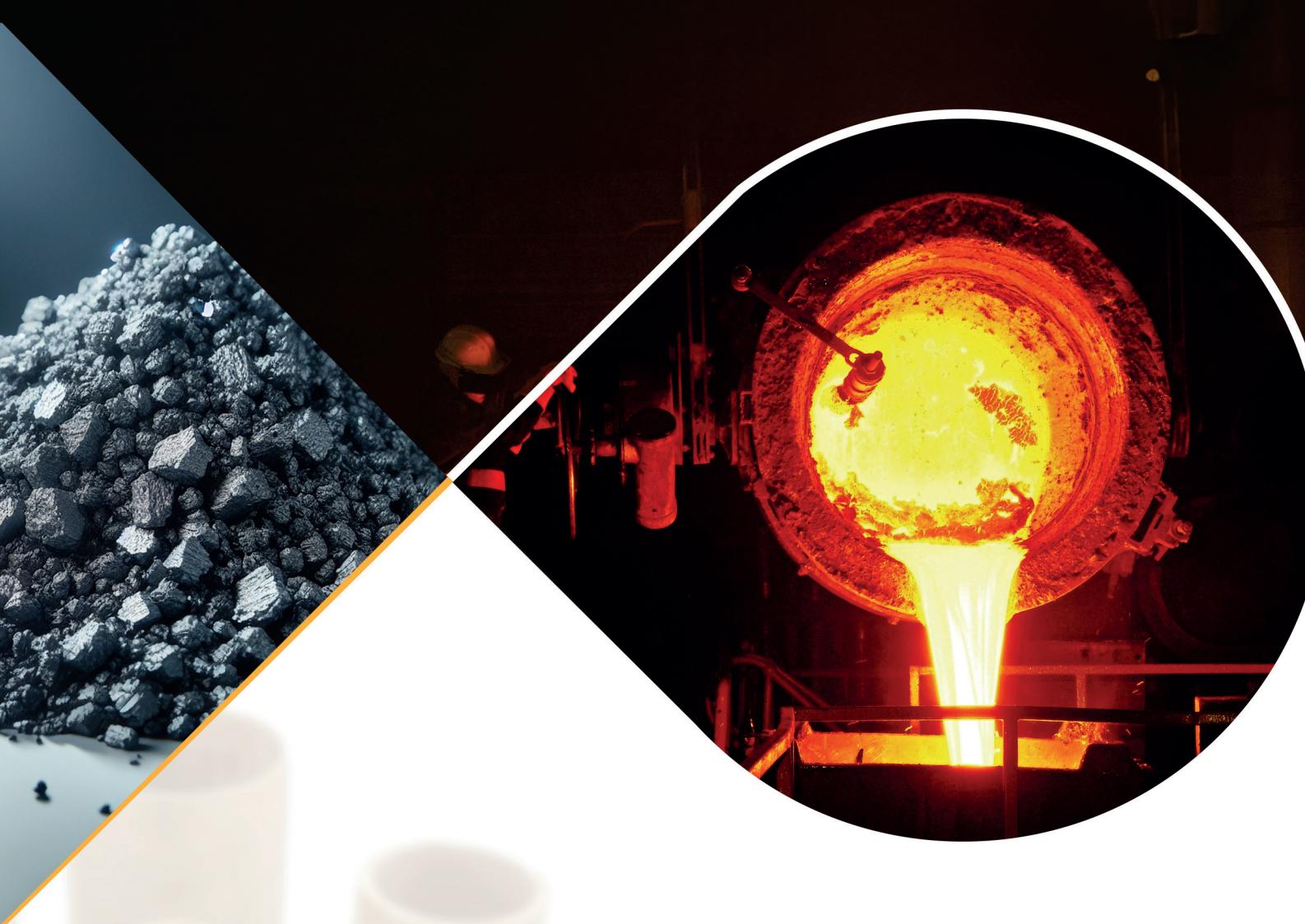


www.ferrore.com.tr



FERRORE
METALLURGY

Ferro Alloys

ABOUT US

Ferrore, established in 2011 in Turkey, based in Konya, continues its activities in the field of raw materials. We specialise in trading metals, minerals, ferro-alloys and chemicals. We supply high quality raw materials to various industries including foundries, galvanising, automotive, construction, mining and energy.

Ferrore offers its customers a high quality and sustainable service, with a creative and dynamic approach to trading through its advanced and efficient staff.

With the win-win policy we maintain with our customers, we are proud of our lasting and reliable relationships and we continue to expand our network day by day, building mutual friendship by providing high quality services.

At the point of trade we have reached today, we export to more than 21 countries of the world and 3 different continents. With our advanced logistics and extensive market network in the field, it supports us to provide fast solutions to our customers.

In our supply network, South American country - Brazil

In our supply network, Asian countries - China, India, Iran, Russia

Ferrore is also involved in the purchase and foreign trade of unused metals such as raw materials for factories in Turkey.



www.ferrore.com.tr

CONTENTS

PIG IRONS.....	4
ALUMINUM INGOTS	4
FERRO ALLOYS	6
CARBON PRODUCTS.....	7
COAL.....	7
SILICON CARBIDE.....	8
SAND BLAST / STEEL SHOT	8
STEEL PRODUCTS.....	9
NOBLE ALLOYS / BASE METALS	9
FOAM FILTERS.....	11
MINI FEEDER FEATURES.....	12
FERKBG SERIES FEEDER SLEEVES.....	13
FERKBG SERIES BREAKER CORE OF FEEDER SLEEVE.....	14
FERKBG DTK SERIES BREAKER CORE OF FEEDER SLEEVE	15
FERKOBG DTK SERIES FEEDER SLEEVES.....	16
FERBG DTK SERIES FEEDER SLEEVES	17
FERKBG DTK SERIES BREAKER CORES.....	17
FERBGK SERIES FEEDER SLEEVES.....	18
FERBGK SERIES BREAKER CORES	19
FERBGK SERIES COVERS	19
FERBG SERIES FEEDER SLEEVES.....	20
FERBG SERIES BREAKER CORES	21
FERBG SERIES COVERS.....	21
FEROBG SERIES FEEDER SLEEVES	22
FEROBG SERIES BREAKER CORES	23
FEROBG SERIES COVERS	23
MINI TYPE FEEDERS.....	24
RESINS	25
NO-BAKE ALFONOL RESINS	26
NO-BAKE ALFONOL RESINS	27
NO-BAKE FURAN RESINS	28
NO-BAKE FURAN RESINS	29
BETANOL RESINS	30
PU COLD BOX RESINS	31
ALKAFEN RESINS	32
HOT BOX RESINS.....	33
HOT BOX RESINS.....	34
TERMOSHOCK RESIN SYSTEMS	35
EXOTHERMIC FEEDER POWDERS	36
CASTING AUXILIARY MATERIALS	37
SHELL SANDS	38

PIG IRONS



FOUNDRY PIG IRON

	C	Si	Mn	P	S
L3	3.50-4.50 %	2.40-2.80 %	0.40-0.80 %	0.08 % max	0.04 % max
L4	3.50-4.50 %	2.00-2.40 %	0.40-0.80 %	0.08 % max	0.04 % max
L5	3.50-4.50 %	1.60-2.00 %	0.40-0.80 %	0.08 % max	0.04 % max
L6	3.50-4.50 %	1.20-1.60 %	0.40-0.80 %	0.08 % max	0.04 % max
L5 – L6 Low Mn	3.50-4.50 %	1.00-2.00 %	0.099 % max	0.08 % max	0.04 % max
SIZE	10-12 kg ingots without notches				
PACKING	Bulk				



BASIC PIG IRON

Basic Pig Iron	C	Si	Mn	P	S
Low Mn	3.50-4.50 %	1.20 % max	0.099 % max	0.08 % max	0.05 % max
PL1 / PL2	3.50-4.50 %	0.6-1.20 %	0.40-0.80 %	0.08 % max	0.05% max
Size	10-18 kg ingots without notches				
Packing	Bulk				



NODULAR PIG IRON

Nodular Pig Iron	C	Si	Mn	P	S
Nodular	3.50-4.50 %	1.0 % max	0.05 % max	0.05 % max	0.015 % max
Nodular HP	3.50-4.50 %	1.0 % max	0.04 % max	0.04 % max	0.010 % max
Size	10-12 kg ingots without notches				
Packing	Bulk				

ALUMINUM INGOTS

ALLOYED INGOTS EQUIVALENT INTERNATIONAL STANDARDS

ETİNORM	TSE	GERMANY DIN	USA AA	FRANCE NF	ENGLAND BS	ISO	CSA	A.S.T.M
FER-ETİAL-110	AISi5Cu3	–	319	A-S5U3	LM4	AISi5Cu3	SC53	BC640
FER-ETİAL-120	AISi 5	AISi5	B443	–	LM18	AISi 5	S5	S5A
FER-ETİAL-140	AISi 12	G-AISi 12	A413	AS13	LM6	AISi 12	–	A13
FER-ETİAL-141	AISi 12Fe	GD-AISi 12	413	A-S 12	LM 20	AISi 12Fe	S12P	S12C
FER-ETİAL-145	–	–	A332	A-S 12UN	LM 13	–	L2551	SN122A
FER-ETİAL-147	–	–	–	–	–	–	–	–
FER-ETİAL-150	–	–	–	–	–	–	–	–
FER-ETİAL-160	AISi 8Cu3Fe	G-AISi 8Cu3	A-380	A-S 9U3A	LM 24	AISi8Cu3Fe	L2630	380
FER-ETİAL-171	AISi10Mg	G-AISi10Mg	A-360	A-S9GU	–	–	–	360
FER-ETİAL-175	–	–	Fe332	–	LM 26	–		SC103A
FER-ETİAL-177	–	–	A357	–	–	–	C135	–
FER-ETİAL-178	–	–	–	–	–	–	–	–
FER-ETİAL-180	–	–	–	–	LM2	–	–	A03831
FER-ETİAL-195	–	–	392,.1	–	–	–	–	392
FER-ETİAL-220	AlCu4Si	GAICu4,5	–	A-U50-T	L91	–	225	–
FER-ETİAL-221	AlCu4Ti	GAICu4Ti	–	–	LM11	AlCu4Ti	226	–
FER-ETİAL-509	–	GDAMg9	–	–	–	–	–	–

UNGROUND SPECIALTY CALCINED ALUMINAS - (Al_2O_3)

Parameters / Product Code	FER 375	FER 345
Calcination Degree	Low Calcined	Low Calcined
Chemical Composition [%]		
Loss on Ignition (300-1000 °C)	<0.9	<0.7
α -Alumina	<15	>25
Al_2O_3	>98.7	>98.8
SiO_2	<0.02	<0.02
Fe_2O_3	<0.02	<0.02
Na_2O	<0.3	<0.3
Physical Properties		
Specific Surface Area (BET) [m ² /g]	70-90	30-50
Angle of Repose [°]	34-36	35-38
Particle Size Distribution		
Mean Particle Size d ₅₀ [μm]	60-85	60-85
Packaging	1.0 MT,1.1 MT,1.2 MT (PE-PP Bigbags)	
All data listed above are reference to the product tolerances. The actual values are stated in the Certificate of Analysis.		

UNGROUND SPECIALTY CALCINED ALUMINAS - (Al_2O_3)

Parameters / Product Code	FER 313	FER 305	FER 301
Calcination Degree	Medium Calcined	Hard Calcined	Very Hard Calcined
Chemical Composition [%]			
Loss on Ignition (300-1000 °C)	<0.2	<0.2	<0.1
α -Alumina	>70	>85	>97
Al_2O_3	>99.3	>99.3	>99.3
SiO_2	<0.025	<0.03	<0.03
Fe_2O_3	<0.025	<0.03	<0.03
Na_2O	<0.3	<0.3	<0.3
Physical Properties			
Specific Surface Area(BET) [m ² /g]	8-15	3-7	<1.5
Particle Size Distribution			
Mean Particle Size d ₅₀ [μm]	60-80	40-70	15-60
Primary Crystal size [μm]	<0.3	<0.5	>2.5
Packaging	1.0 MT,1.1 MT,1.2 MT (PE-PP Bigbags)		
All data listed above are reference to the product tolerances. The actual values are stated in the Certificate of Analysis.			



FERRO ALLOYS



FERRO SILICON

	Si	Al	C	P	S
FeSi 45 %	45 % min	2.00 % max	0.20 % max	0.03% max	0.02 % max
FeSi 65 %	65 % min	1.50 % max	0.15 % max	0.03% max	0.02 % max
FeSi 75 %	75 % min	1.50 % max	0.15 % max	0.03% max	0.02 % max
FeSi 75 % Low Al	75 % min	1.00 % max	0.05 % max	0.03% max	0.02 % max
FeSi 75 % High Purity	75 % min	0.10 % max	0.03 % max	0.03% max	0.02 % max
Size	1-3 mm / 3-10 mm / 10-50 mm / 10-100 mm				
Packing	Bulk or 1 mt big-bag				



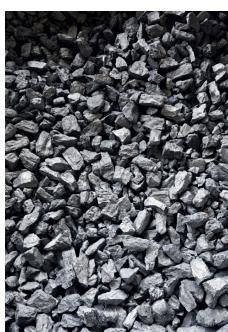
FERRO MANGANESE

	Mn	C	Si	P	S
FeMn HC	75 % min	6-8 %	1.50 % max	0.25 % max	0.03 % max
FeMn HC Low P	76/78 % min	6-8 %	1.50 % max	0.10 % max	0.03 % max
FeMn MC	80 % min	1.50 % max	1.50 % max	0.20 % max	0.03 % max
FeMn LC	80 % min	0.50 % max	0.50 % max	0.025 % max	0.03 % max
Size	1-3 mm / 3-10 mm / 10-50 mm / 10-100 mm				
Packing	Bulk or 1 mt big-bag				



FERRO SILICO MANGANESE

	Mn	Si	C	P	S
FeSiMn 6014	60 % min	14 % min	2.0 % max	0.30 % max	0.05 % max
FeSiMn 6517	65 % min	17 % min	2.0 % max	0.30 % max	0.03 % max
FeSiMn 7018	70 % min	17 % min	2.0 % max	0.30/0.50 % max	0.03 % max
Size	10-50 mm / 10-80 mm				
Packing	Bulk or 1 mt big-bag				



FERRO SILICO MAGNESIUM

	Mg	Si	Ca	TRE	La	Al
FeSiMg	5.50 – 6.50 %	43.0 – 48.0 %	0.80 – 1.20 %	0.80 – 1.20 %		0.40-0.80 %
FeSiMgMCa	5.50 – 6.50 %	43.0 – 48.0 %	1.80 – 2.00 %	0.80 – 1.20 %		0.40-0.80 %
FeSiMgHMg	8.00 – 10.00 %	43.0 – 48.0 %	0.80 – 1.20 %	0.80 – 1.20 %		0.40-0.80 %
FeSiMgLa	5.50 – 6.50 %	43.0 – 48.0 %	0.80 – 1.20 %		0.35 – 0.45 %	0.40-0.80 %
Size	1-10mm / 2-20 mm / 3-25 mm / 6-30 mm and as per customers requirements					
Packing	appr. 1mt big-bag					



FERRO CHROME

	Cr	C	Si	P	S
FeCr HC-Charge CR	55-60 %	6-8 %	3.0 % max	0.03 % max	0.04 % max
FeCr HC	60-65 %	6-8 %	1.5 % max	0.02 % max	0.02 % max
FeCr MC	60-65 %	0.5/1.0 % max	1.0 % max	0.03 % max	0.03 % max
FeCr LC	65-70 %	0.10/0.25 % max	1.0 % max	0.03 % max	0.03 % max
FeCr LC high purity	65-70 %	0.03/0.06 % max	1.0 % max	0.03 % max	0.03 % max
Size	4-10 mm / 10-50 mm / 10-80 mm / 10-100 mm				
Packing	Bulk or 1 mt big-bag				



FERRO PHOSPHORUS

	P	Si	C	S	Cu	V
FeP	23-28 %	1-2 %	0.1 % max	0.01 % max	0.5 % max	0.5 % max
SIZE	10-50 mm / 10-100 mm					
PACKING	1 mt big-bag					



INOCULANTS

	Si	Ca	Al	Ba	Zr	Mn	La	Sr
FeSiBa	65.0-75.0 %	1.50-2.25 %	0.60-1.00 %	2.50-3.75 %				
FeSiZrMn	60.0-65.0 %	1.50 % max	0.60-1.25 %		3.00-3.50 %	3.50-4.00 %		
FeSiLa	70.0-75.0 %	1.50-2.00 %		1.50-2.00 %			1.50-2.00 %	
FeSiSr	70.0-75.0 %	2.00 %	1.00 % max					1.00-1.50 %
Size	0,2-3mm, 1-3mm, 3-6mm							
Packing	500 lb. steel drum / 2 – 3,000 lb. super sack or wooden box / Customer specific packaging where required							



NICKEL

	Ni	C	Co	S	N	Cu
Nickel	99.98 %	0.012 %	0.2 PPM	0,0005 %	0,0006 %	0,0001 %
Size	10x10 mm					
Packing	Barrel					

CARBON PRODUCTS



CARBON

	Fix Carbon	Sulphur	Nitrogen	Ash	Hydrogen	Size (mm)
Carbon Products S	99.85 %	0.01 %	0.001 %	0.18%	0.007%	0.5-4
Carbon Products G	99.50 %	0.85 %	0.03%	0.36%	0.19%	0.5-4
Packing	Big-bags / Paper Bags wrapped on Pallets					

COAL



COKING COAL

total Moisture (as-received)	%max 7,00
Ash (dry basis)	%max 8,00
Volatile Matter (dry basis)	%max 2,00
Sulphur(dry basis)	%max 0,60
Phosphorus (dry basis)	%max 0,050
Total Alkali K2O+Na2O(in ash)	%max 2,80
Free Swelling Index (FSI)	min 7,00
Max.Fluidity (ddpm)	min 150
Relative Degree of Oxidation	%95
Random Vitrinite Reflectance	0,9-1,5
Size	10-50 mm
	+100 mm
	-0,50 mm
Dilatation (A.A., +d)	%min25
Ash Fusion Temperature	min.1350
Net Calorific Value (dry basis)	min.6500
Stability	min.55
Coke Reactivity Index (CRI)	max.32
Coke Strength after Reaction (CSR)	min.50
Coking Wall Pressure (kpa)	max.7

SILICON CARBIDE



SILICON CARBIDE (BRIQUETTE)

	SiC	Fe	CaO	Al2O3	C	Si from SiC	C free from SiC
Extra	70 % min		22.5 %	0.5 %	1.5 %	50%	21%
Normal	50 % min		13.5 %	0.5 %	1.5 %	35%	15%
Special	70 % min	0.5 % max	13.5 %	0.5 %	1.5 %	50%	21%
Size	10 x 10 x 11 cm or hexagonal 9 x 10 cm						
Packing	1 mt big-bag						



SILICON CARBIDE (POWDER)

	SiC	Fe	Al2O3	H2O	C
Extra	88.0 – 92.0 % min	0.5 % max	3.0 % max	1.0 % max	1.5 %
Size	1 – 10 mm				
Packing	1 mt big-bag				

SAND BLAST / STEEL SHOT

STEEL SHOT

Product Size(mm)		% : min & max cumulative percentages allowed on corresponding sieves													
S780 2.0-2.8	0%	85 %													
min		97 %													
min															
S660 1.7-2.4		85 % min	97 % min												
S550 1.4-2.0		0%	85 % min	97 % min											
S460 1.2-1.7		0%	5 % max	85 % min	96 % min										
S390 1.0-1.4		0%	5 %												
max		85 %													
min		96 %													
min															
S330 0.85-1.2		0%	5 % max		85 % min	96 % min									
S280 0.71-1.0	8		0%	5 % max	85 % min	96 % min									
S230 0.6-0.85	2.36			0%	10 % max		85 % min	97 % min							
S170 0.42-0.71				0%	10 % max			85 % min	97 % min						
S110 0.3-0.5							0%	10 % max				80 % min	90 % min		
S70 0.18-0.35	0%						0%	10 % max					80 % min		
SAE Sieve No.	7	10	12	14	16	18	20	25	30	35	40	45	50	80	120
Aperture	2.80	2.00	1.70	1.40	1.18	1.00	0.85	0.71	0.60	0.50	0.425	0.355	0.30	0.18	1.125

STAINLESS STEEL SHOT

mm	EN 20	EN 30	EN 40	EN 50	EN 60	EN 100
1.400						5 % max
1.180					5 % max	
1.000				5 % max		
0.850			5 % max			
0.710					5 % max	
0.600				90 % max		
0.500		5 % max				
0.425			90 % max			
0.355						
0.300	5 % max					
0.212						
0.106		90 % max				
0.075	90 % max					

STEEL PRODUCTS

STEEL BILLET

REBAR / DEBAR

WIRE ROD

HOT ROLLED COIL (HRC)

COLD ROLLED COIL (CRC)

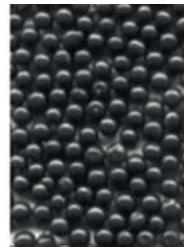
TRAIN RAILS and PARTS



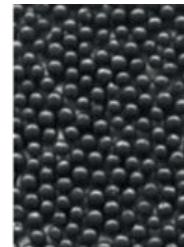
S780



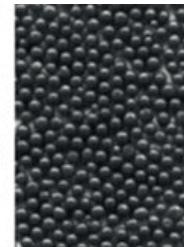
S660



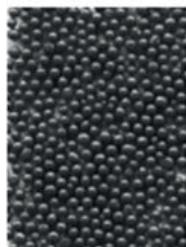
S550



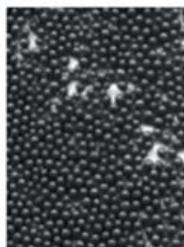
S460



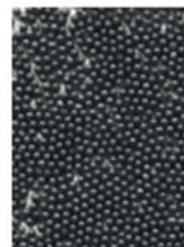
S390



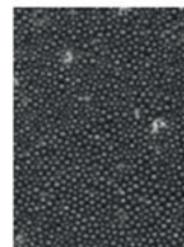
S330



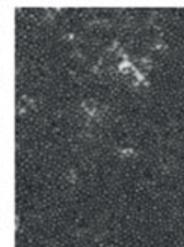
S280



S230



S170



S110



NOBLE ALLOYS / BASE METALS



FERRO TITANIUM

Ti	40 / 70	% min
Al	0.5 / 4.5	% max
V	3	% max
N	0.2 / 0.5	% max
S	0.03	% max
P	0.04	% max
C	0.20	% max
Mn	1,5	% max
Size	10-50 mm / 10-100 mm	
Packing	1 mt big-bag / steel drums	



FERRO NIOBIUM

Nb	63 / 65	% min
Al	2 / 3	% max
Si	2.5 / 3	% max
C	0.3	% max
P	0.2	% max
SIZE	5-30 mm / 10-50 mm	
Packing	1 mt big-bag / steel drums	



FERRO MOLYBDENUM

Mo	60 / 65	% min
Cu	0.5	% max
Si	1,5	% max
S	0.1	% max
Cu	0.1	% max
P	0.05	% max
Size	10-50 mm / 10-100 mm	
Packing	1 mt big-bag / steel drums	



FERRO TUNGSTEN

W	75	% min
Si	0.5	% max
C	0.2	% max
Mn	0.25	% max
Cu	0.15	% max
S	0.08	% max
P	0.05	% max
As	0.05	% max
Sb	0.05	% max
Sn	0.08	% max
Pb	0.05	% max
Bi	0.06	% max
Size	10-50 mm / 10-100 mm	
Packing	1 mt big-bag / steel drums	



FERRO VANADIUM

V	78 – 82	%
Al	0.5 / 1.5	% max
Si	1.5	% max
C	0.1 / 0.25	% max
S	0.05	% max
P	0.05	% max
Cu	0.1	% max
As	0.05	% max
Size	5-50 mm / 10-50 mm / 10-80 mm	
Packing	1 mt big-bag / steel drums	



MOLY OXIDE

GRADE	Mo	Pb (%)	S (%)	P (%)	C (%)	Cu (%)
				Max		
YMo57	≥ 57.00	0.2 (0.05)	0.10	0.05	0.10	0.50
YMo55	≥ 55.00	0.2 (0.05)	0.10	0.05	0.10	0.50
YMo51	≥ 51.00	0.2 (0.05)	0.10	0.05	0.10	0.50
Size	0-4 mm 90 % min					
Packing	In 200 / 250 kgs iron drums or big-bag on pallets					



MOLYBDENUM

Mo	99.80	% min	Mo	99	% min
W	0.20	% max	Size	Briquette (1'X1'X3')	
O2	0.50	% max	Packing	in 300 kgs boxes	
Size	Size Bar / plate				
Packing	1 mt bigbags / steel drums				

CERAMIC - FOAM FILTERS

DIMENSIONS

10 ppi	10 ppi	20 ppi	20 ppi
40*40*15 mm	40*40*22 mm	40*40*15 mm	40*40*22 mm
50*50*15 mm	50*50*22 mm	50*50*15 mm	50*50*22 mm
75*50*15 mm	75*50*22 mm	75*50*15 mm	75*50*22 mm
75*75*15 mm	75*75*22 mm	75*75*15 mm	75*75*22 mm
100*100*15 mm	100*100*22 mm	100*100*15 mm	100*100*22 mm
Ø 60*15 mm	Ø 60*22 mm	Ø 60*15 mm	Ø 60*22 mm
Ø 70*15 mm	Ø 70*22 mm	Ø 70*15 mm	Ø 70*22 mm
Ø 90*15 mm	Ø 90*22 mm	Ø 90*15 mm	Ø 90*22 mm
Ø 100*15 mm	Ø 100*22 mm	Ø 100*15 mm	Ø 100*22 mm



MINI FEEDER FEATURES

FEEDER SHIRT and MINI FEEDER SHIRT SPECIFICATIONS

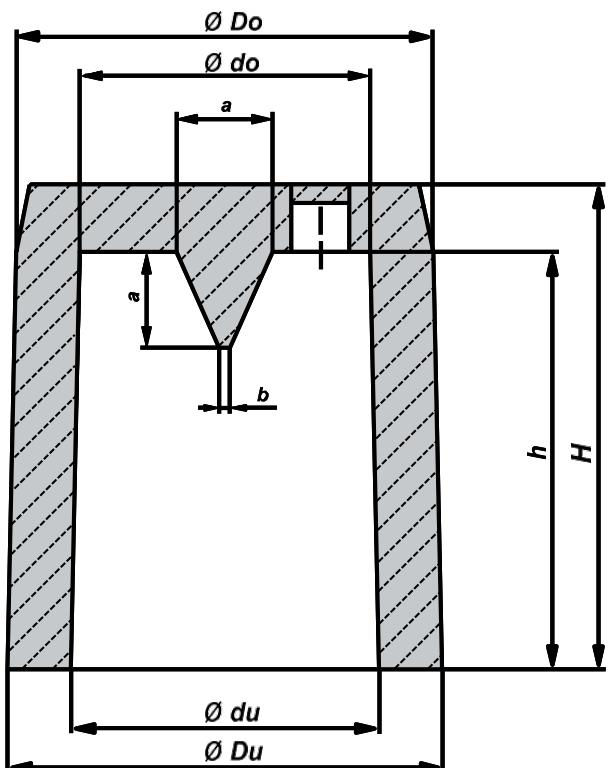
Test Type Product Type	Reaction Entry Time, sec*	Reaction Time, sec*	Density, g/cm ³	Maximum Temperature, °C	Combustion Loss, %
Highly Exothermic	70 - 90	100 - 120	0.45 - 0.55	1560 - 1600	-
Medium Exothermic	90 - 120	150 - 200	0.55 - 0.65	1460 - 1520	-
Insulation Based	-	-	0.40 - 0.50	-	9.0 - 12.0
Mini Feeder	20 - 50	100 - 120	1.40 - 1.50	1560 - 1620	-

* Tests were carried out at 900 C in open atmosphere.

Stock Conditions

Feeder liners and mini feeders should be stored in closed packaging and in a moisture-free environment.

FERKBG SERIES FEEDER SLEEVES



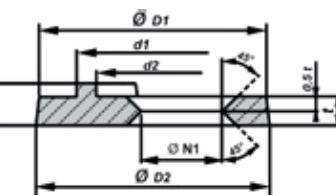
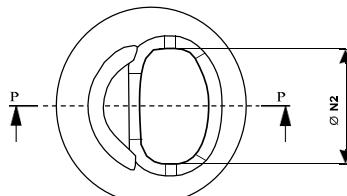
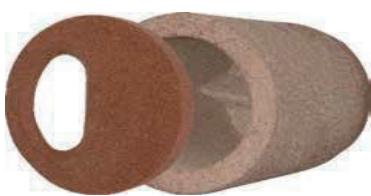
Williams Recess Dimensions (mm)

PRODUCT TYPE	a	b
FERKBG 3,5/5	12.00	2.00
FERKBG 3,5/5	12.00	2.00
FERKBG 3/9	12.00	2.00
FERKBG 4/7	14.00	2.00
FERKBG 4/95	14.00	2.00
FERKBG 3,5/5	12.00	2.00
FERKBG 5/8	16.00	2.00
FERKBG 6/9	18.00	2.00
FERKBG 6/12	18.00	2.00
FERKBG 6/13	18.00	2.00
FERKBG 7/10	20.00	3.00
FERKBG 8/11	22.00	3.00
FERKBG 9/12	24.00	3.00
FERKBG 10/13	26.00	3.00
FERKBG 11/14	26.00	3.00
FERKBG 12/15	30.00	4.00
FERKBG 14/15	32.00	4.00
FERKBG 16/15	34.00	4.00
FERKBG 14/15	4.19	2.62
FERKBG 16/15	4.84	3.02

PRODUCT TYPE	MODULE (cm)		DIMENSIONS (mm)							VOLUME	PALET
	FERKG	FERGEOM	$\varnothing du$	$\varnothing Du$	$\varnothing do$	$\varnothing Do$	h	H	dm^3		
FERKBG-2/6	0.86	0.54	24.00	40.00	21.00	37.00	50.00	60.00	0.01	6750	
FERKBG 3,5/5	1.00	0.60	34.20	53.50	30.50	49.00	38.50	48.50	0.03	5005	
FERKBG 3/7	1.05	0.60	32.00	46.00	31.30	44.50	56.50	65.00	0.04	4160	
FERKBG 3/9	1.10	0.65	32.00	45.50	31.00	44.00	80.00	90.00	0.06	4160	
FERKBG 4/7	1.20	0.75	41.50	62.50	35.50	59.00	63.00	71.50	0.07	2160	
FERKBG 4/95	1.30	0.80	42.50	63.00	36.00	59.00	85.00	97.00	0.10	1890	
FERKBG 4/141	1.40	0.90	41.00	63.00	36.00	58.50	128.50	140.00	0.11	1620	
FERKBG 5/8	1.50	0.95	52.00	73.50	48.00	70.00	70.00	80.00	0.13	1800	
FERKBG 6/9	1.70	1.05	57.50	80.00	52.50	76.00	78.50	91.00	0.18	1400	
FERKBG 6/12	1.80	1.10	57.50	80.00	52.50	76.00	105.00	120.00	0.25	1050	
FERKBG 6/13	1.85	1.15	57.50	80.00	52.50	75.00	115.00	130.00	0.29	1050	
FERKBG 7/10	2.00	1.25	69.50	94.00	65.00	89.50	87.00	99.00	0.30	840	
FERKBG 8/11	2.25	1.40	79.00	102.00	71.50	99.00	96.50	108.00	0.42	700	
FERKBG 9/12	2.50	1.55	89.00	115.00	81.00	110.00	104.50	120.00	0.58	525	
FERKBG 10/13	2.80	1.75	97.00	127.50	91.00	119.00	117.00	133.00	0.80	420	
FERKBG 11/14	3.00	1.90	107.00	140.00	100.00	133.00	125.00	140.00	1.03	330	
FERKBG 12/15	3.20	2.00	118.00	154.50	112.00	148.00	130.00	150.00	1.35	240	
FERKBG 14/15	4.19	2.62	134.00	174.00	127.00	167.00	133.00	153.00	1.71	180	
FERKBG 16/15	4.84	3.02	160.00	200.00	153.00	193.00	133.00	153.00	2.07	150	

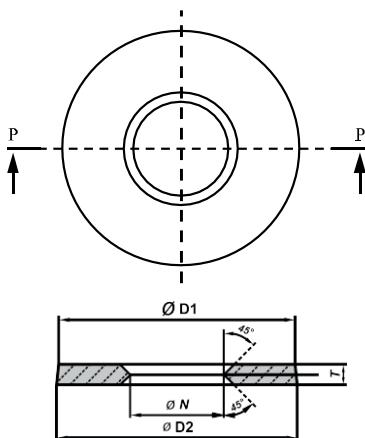
Note: Pallet quantities are valid for 100x120 pallets.

FERKBG SERIES BREAKER CORE OF FEEDER SLEEVE



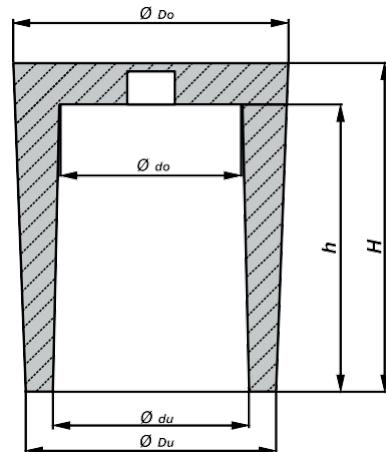
DIMENSIONS (mm)

PRODUCT TYPE	ØD1	ØD2	d1	d2	N1	N2	T	t
FERKBG 4/95 MQ0	62.00	63.00	20.00	16.00	23.00	38.00	11.00	8.00
FERKBG 5/8 MQ0	73.50	74.50	26.00	19.25	22.00	35.00	12.00	8.00
FERKBG 6/9 MQ0	79.50	80.00	28.00	23.00	25.00	43.00	13.00	8.00
FERKBG 6/12 MQ0	79.50	80.00	28.00	23.00	25.00	43.00	13.00	8.00
FERKBG 6/13 MQ0	79.50	80.00	28.00	23.00	25.00	43.00	13.00	8.00
FERKBG 7/10 MQ0	93.50	94.00	34.70	28.25	28.50	52.50	14.00	10.00
FERKBG 8/11 MQ0	100.00	101.00	39.00	33.00	33.50	60.00	14.00	10.00
FERKBG 9/12 MQ0	113.00	115.00	43.50	38.50	40.00	61.00	14.00	10.00
FERKBG 10/13 MQ0	125.50	127.00	47.50	42.00	42.00	68.00	14.00	10.00
FERKBG 12/15 MQ0	153.00	154.00	58.50	52.50	50.00	82.00	16.00	12.00
FERKBG 14/15 MQ0	172.00	173.00	-	-	61.00	104.00	12.00	-
FERKBG 16/15 MQ0	196.50	197.50	-	-	73.00	124.00	14.00	-



PRODUCT TYPE	DIMENSIONS (mm)			
	ØD1	ØD2	ØN	T
FERKBG 3/9 MQY	43.00	44.00	25.00	8.00
FERKBG 3,5/5 MQY	52.00	53.00	20.00	7.00
FERKBG 4/95 MQY	56.00	57.00	30.00	7.00
FERKBG 5/8 MQY	72.50	73.50	30.00	8.00
FERKBG 6/9 MQY	79.00	80.00	30.00	8.00
FERKBG 6/12 MQY	79.00	80.00	30.00	8.00
FERKBG 6/13 MQY	79.00	80.00	30.00	8.00
FERKBG 7/10 MQY	93.50	94.50	35.00	8.00
FERKBG 8/11 MQY	100.00	101.00	40.00	10.00
FERKBG 9/12 MQY	113.00	114.00	45.00	10.00
FERKBG 10/13 MQY	126.00	127.00	50.00	10.00
FERKBG 11/14 MQY	137.00	139.00	55.00	12.00
FERKBG 12/15 MQY	152.00	154.00	60.00	12.00
FERKBG 14/15 MQY	172.00	173.00	70.00	12.00
FERKBG 16/15 MQY	197.50	196.50	80.00	14.00

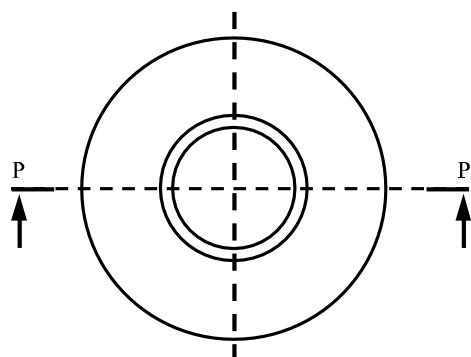
FERKBG DTK SERIES FEEDER SLEEVES



PRODUCT TYPE	MODULE (cm)		DIMENSIONS (mm)						VOLUME dm³	PALET Pcs
	FERKBG	GEOM	Ødu	ØDu	Ødo	ØDo	h	H		
FERKBG 4/7 DTK	1.20	0.75	41.00	57.50	35.50	63.00	63.00	71.50	0.07	2160
FERKBG 4/95 DTK	1.30	0.80	42.00	58.00	36.00	63.50	87.00	97.00	0.10	1890
FERKBG 5/8 DTK	1.50	0.95	51.50	68.00	47.50	73.00	71.00	81.00	0.13	1800
FERKBG 6/9 DTK	1.70	1.05	57.50	74.50	52.00	79.50	79.00	92.00	0.18	1400
FERKBG 7/10 DTK	2.00	1.25	69.00	88.00	65.00	94.50	88.00	100.00	0.31	840
FERKBG 8/11 DTK	2.25	1.40	78.00	97.50	71.00	103.50	95.00	108.00	0.42	700
FERKBG 9/12 DTK	2.50	1.55	89.00	108.50	82.50	116.00	105.00	120.50	0.61	525
FERKBG 10/13 DTK	2.80	1.75	97.00	118.00	91.50	128.00	114.00	130.50	0.80	420

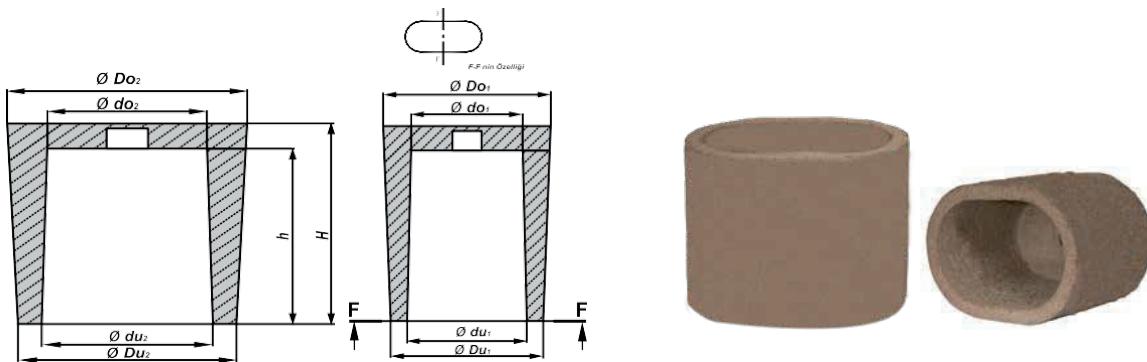
Note: Pallet quantities are valid for 100x120 pallets.

FERKBG DTK SERIES BREAKER CORE OF FEEDER SLEEVE



PRODUCT TYPE	DIMENSIONS (mm)			
	ØD1	ØD2	ØN	T
FERKBG 4/7 DTK- 4/95 MQ	56.00	57.00	30.00	7.00
FERKBG 5/8 DTK MQ	66.00	67.00	30.00	8.00
FERKBG 6/9 DTK MQ	72.50	73.50	30.00	8.00
FERKBG 7/10 DTK MQ	86.00	87.00	35.00	8.00
FERKBG 8/11 DTK MQ	94.00	96.00	40.00	10.00
FERKBG 9/12 DTK MQ	105.00	107.00	45.00	10.00
FERKBG 10/13 DTK MQ	115.00	117.00	50.00	10.00

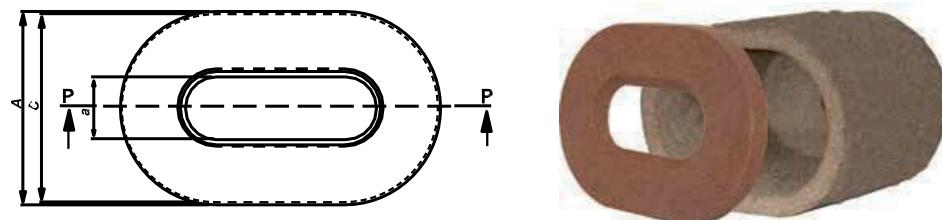
FERKOBG DTK SERIES FEEDER SLEEVES



PRODUCT TYPE	MODULE (cm)	DIMENSIONS (mm)												VOLUME	PALET
		FERKOBG	GEO M	Ødu1	Ødu2	Ødo1	Ødo2	ØDu1	ØDu2	ØDo1	ØDo2	h	H	dm³	Pcs
FERKOBG 5/8 DTK	1.75	1.10	51.00	76.00	45.00	70.00	69.00	94.00	74.00	99.00	68.00	80.00	0.22	2160	
FERKOBG 6/9 DTK	2.10	1.30	61.00	91.00	55.00	85.00	82.00	112.00	88.00	118.00	78.00	90.00	0.36	1890	
FERKOBG 7/10 DTK	2.40	1.50	72.00	107.00	64.00	99.00	93.00	128.00	100.00	135.00	88.00	100.00	0.55	1800	
FERKOBG 8/11 DTK	2.70	1.70	80.00	122.00	72.00	114.00	104.00	146.00	112.00	154.00	98.00	110.00	0.80	1400	

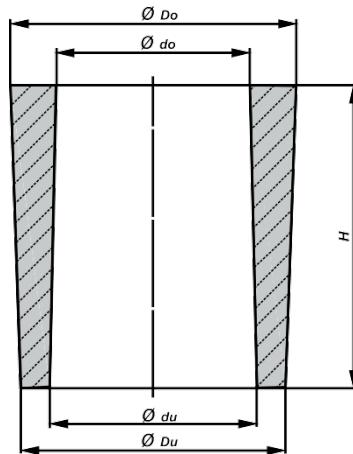
Note: Pallet quantities are valid for 100x120 pallets.

FERKOBG DTK SERIES BREAKER CORES



PRODUCT TYPE	DIMENSIONS (mm)						
	A	B	a	b	C	D	T
FERKOBG 5/8 DTK MQ	67.00	92.00	25.00	50.00	64.00	88.00	8.00
FERKOBG 6/9 DTK MQ	80.00	109.00	28.00	56.00	76.00	106.00	8.00
FERKOBG 7/10 DTK MQ	91.00	127.00	31.00	62.00	88.00	124.00	10.00
FERKOBG 8/11 DTK MQ	102.00	144.00	35.00	70.00	98.00	141.00	10.00

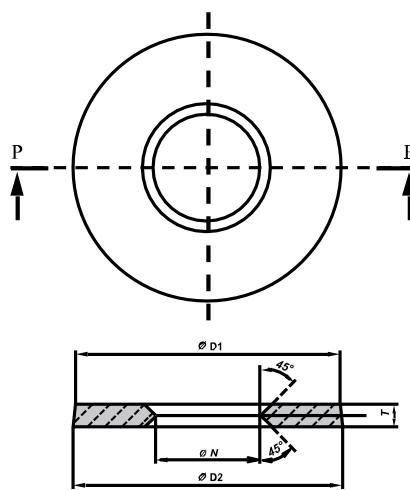
FERBG DTK SERIES FEEDER SLEEVES



PRODUCT TYPE	MODULE (cm)		DIMENSIONS (mm)						VOLUME dm³	PALET Pcs
	FERBG	GEOM	Ødu	ØDu	Ødo	ØDo	H			
FERBG 5/8 DTK	1.50	0.95	51.00	68.50	47.00	74.50	80.00	0.15	1800	
FERBG 6/9 DTK	1.70	1.05	57.00	74.00	51.00	80.00	91.00	0.21	1400	
FERBG 7/10 DTK	2.00	1.25	69.00	87.50	64.00	95.00	101.00	0.35	840	
FERBG 8/11 DTK	2.25	1.40	77.50	97.50	70.00	104.00	108.00	0.46	700	
FERBG 9/12 DTK	2.50	1.55	88.00	107.00	80.00	116.00	119.00	0.66	525	
FERBG 10/13 DTK	2.80	1.75	97.00	118.00	89.50	128.00	131.00	0.89	420	

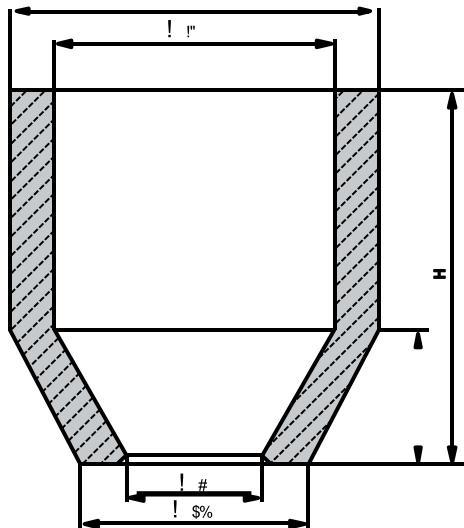
Note: Pallet quantities are valid for 100x120 pallets.

FERKBG DTK SERIES BREAKER CORES



PRODUCT TYPE	DIMENSIONS (mm)			
	ØD1	ØD2	ØN	T
FERKBG 4/7 DTK- 4/95 MQ	56.00	57.00	30.00	7.00
FERKBG 5/8 DTK MQ	66.00	67.00	30.00	8.00
FERKBG 6/9 DTK MQ	72.50	73.50	30.00	8.00
FERKBG 7/10 DTK MQ	86.00	87.00	35.00	8.00
FERKBG 8/11 DTK MQ	94.00	96.00	40.00	10.00
FERKBG 9/12 DTK MQ	105.00	107.00	45.00	10.00
FERKBG 10/13 DTK MQ	115.00	117.00	50.00	10.00

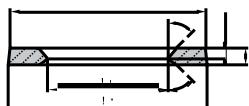
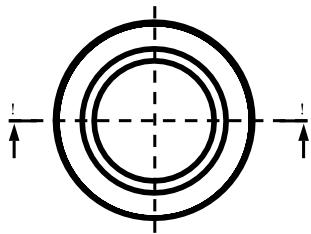
FERBGK SERIES FEEDER SLEEVES



PRODUCT TYPE	MODULE (cm)		DIMENSIONS (mm)							VOLUME	PALET
	FERBGK	GEOM	ØN	ØDu	Ødo	ØDo	h	H	dm3		
FERBGK 0	1.50	1.00	30.00	55.00	50.00	75.00	15.00	100.00	0.18	1400	
FERBGK 0/150	1.61	1.07	30.00	55.00	50.00	75.00	15.00	150.00	0.36	1050	
FERBGK 0.5	2.10	1.40	48.00	77.00	66.00	91.00	15.00	100.00	0.41	840	
FERBGK 1 DD	2.20	1.45	53.00	80.00	76.00	100.00	17.00	73.00	0.46	700	
FERBGK 1	2.30	1.50	38.00	69.00	78.00	100.00	27.00	100.00	0.48	700	
FERBGK 1/150	2.50	1.70	38.00	69.00	78.00	100.00	27.00	150.00	0.81	500	
FERBGK 2 DD	2.70	1.80	57.00	86.00	85.00	114.00	24.00	90.00	0.93	525	
FERBGK 2	3.20	2.10	45.00	74.00	85.00	114.00	34.00	100.00	1.40	525	
FERBGK 2/150	3.60	2.40	45.00	74.00	85.00	115.00	34.00	150.00	2.16	450	
FERBGK 3/180	4.10	2.70	48.00	76.00	94.00	130.00	43.00	180.00	3.00	300	
FERBGK 3 EK	4.40	2.90	58.70	88.56	94.00	130.00	33.00	150.00	4.05	360	
FERBGK 3 DD	4.80	3.20	48.00	76.00	94.00	130.00	21.50	128.50	5.10	360	
FERBGK 3	5.10	3.50	48.00	76.00	94.00	130.00	43.00	150.00	6.50	360	
FERBGK 4 EK	5.50	3.80	76.00	115.00	118.00	157.00	35.00	150.00	8.00	294	
FERBGK 4 DD	6.20	4.30	60.00	97.00	118.00	157.00	25.00	125.00	12.20	294	
FERBGK 4	7.00	4.80	60.00	97.00	118.00	157.00	50.00	150.00	17.00	294	
FERBGK 4.5	7.70	5.30	65.00	109.00	135.00	177.00	65.00	180.00	22.60	216	
FERBGK 5 EK	8.50	6.20	90.00	135.00	147.00	192.00	43.00	195.00	52.81	150	
FERBGK 5 DD	2.00	1.25	70.00	120.00	147.00	192.00	34.00	161.00	0.37	150	
FERBGK 5	2.05	1.30	70.00	120.00	147.00	192.00	68.00	195.00	0.39	150	
FERBGK 5.5	2.20	1.30	80.00	128.00	165.00	211.00	80.00	225.00	0.47	100	
FERBGK 6 EK	3.10	2.10	102.00	149.00	175.00	222.00	70.00	250.00	1.12	92	
FERBGK 6	2.85	1.90	87.00	132.00	175.00	222.00	90.00	250.00	0.97	92	
FERBGK 7	2.60	1.65	100.00	150.00	200.00	250.00	100.00	250.00	0.83	76	
FERBGK 8	3.45	2.40	110.00	160.00	225.00	278.00	110.00	250.00	1.52	60	
FERBGK 9	3.10	2.05	124.00	180.00	252.00	310.00	120.00	300.00	1.25	36	
FERBGK 10	4.20	2.75	150.00	210.00	300.00	360.00	140.00	300.00	3.06	24	
FERBGK 11	3.70	2.50	175.00	240.00	355.00	410.00	155.00	300.00	2.48	18	
FERBGK 12/400	5.00	3.40	220.50	272.50	460.00	512.00	185.00	400.00	5.41	8	

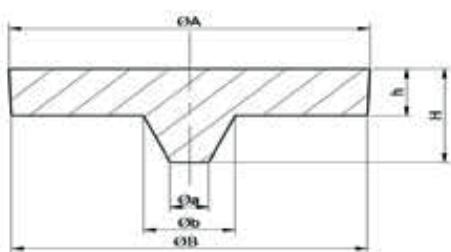
Note: Pallet quantities are valid for 100x120 pallets.

FERBGK SERIES BREAKER CORES



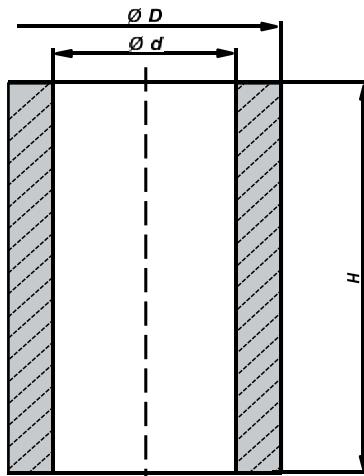
PRODUCT TYPE	DIMENSIONS (mm)			
	ØA	ØB	ØN	T
FERBGK 0 MQ	44.00	55.00	25.00	8.00
FERBGK 1 MQ	60.00	69.00	35.00	8.00
FERBGK 2 MQ	65.00	74.00	42.00	8.00
FERBGK 3 MQ	75.50	76.00	45.00	10.00
FERBGK 4 MQ	96.50	97.00	58.00	10.00
FERBGK 4.5 MQ	98.50	109.00	63.00	10.00
FERBGK 5 MQ	118.00	120.00	68.00	12.00
FERBGK 5.5 MQ	118.00	128.00	77.00	10.00
FERBGK 6 MQ	126.00	132.00	84.00	14.00
FERBGK 7 MQ	142.00	150.00	96.00	14.00
FERBGK 8 MQ	143.90	160.00	108.00	15.00
FERBGK 9 MQ	163.80	180.00	120.00	15.00
FERBGK 10 MQ	194.00	210.00	145.00	15.00
FERBGK 11 MQ	223.50	240.00	170.00	15.00

FERBGK SERIES COVERS



PRODUCT TYPE	DIMENSIONS (mm)							VAULT
	ØA	ØB	Øa	Øb	h	H	Pch	
FERBGK 0	75.00	74.00	8.00	19.00	11.00	24.00	1000	
FERBGK 1	100.00	99.00	10.00	25.00	11.00	28.00	750	
FERBGK 2	114.00	113.00	11.00	28.00	13.00	32.00	750	
FERBGK 3	130.00	129.00	13.00	33.00	15.00	37.00	600	
FERBGK 4	157.00	156.00	16.00	40.00	15.00	41.00	300	
FERBGK 5	192.00	191.00	20.00	48.00	15.00	47.00	200	
FERBGK 6	222.00	221.00	22.00	55.00	16.00	52.00	120	
FERBGK 7	250.00	249.00	25.00	62.00	18.00	58.00	100	
FERBGK 8	278.00	277.00	28.00	70.00	18.00	64.00	60	
FERBGK 9	310.00	309.00	31.00	78.00	20.00	72.00	55	
FERBGK 10	360.00	359.00	36.00	90.00	21.00	80.00	25	
FERBGK 11	410.00	409.00	41.00	103.00	20.00	89.00	20	

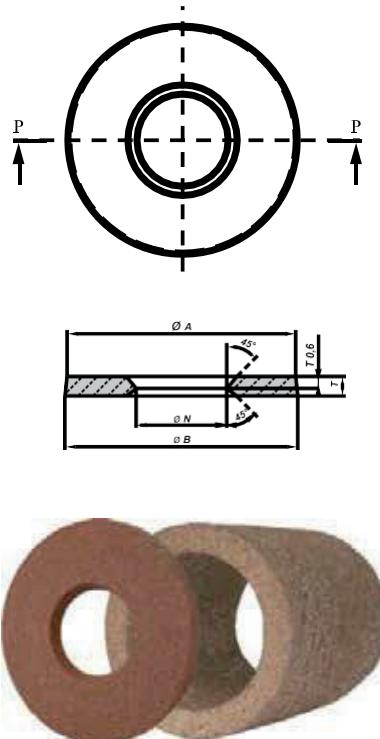
FERBG SERIES FEEDER SLEEVES



PRODUCT TYPE	MODULE (cm)		DIMENSIONS (mm)			VOLUME dm ³	PALET Pcs
	FERBG	GEOM	Ød	ØD	H		
FERBG 1	1.40	0.90	40.00	64.00	150.00	0.20	1350
FERBG 2	1.95	1.25	60.00	86.00	150.00	0.40	900
FERBG 3	2.40	1.60	80.00	110.00	150.00	0.80	450
FERBG 4	2.80	1.90	100.00	140.00	150.00	1.20	384
FERBG 5	3.20	2.15	120.00	160.00	150.00	1.70	294
FERBG 5,5	3.90	2.60	125.00	165.00	150.00	3.10	252
FERBG 6	3.80	2.50	140.00	180.00	200.00	2.70	180
FERBG 6/150	4.30	2.85	150.00	190.00	150.00	4.00	210
FERBG 7	4.70	3.10	160.00	205.00	200.00	5.10	140
FERBG 8	4.80	3.35	180.00	230.00	200.00	6.30	100
FERBG 9	5.40	3.75	200.00	250.00	200.00	9.40	95
FERBG 9/300	5.60	3.85	200.00	250.00	300.00	9.80	57
FERBG 10	6.40	4.40	250.00	305.00	200.00	14.70	60
FERBG 10/300	6.20	4.30	250.00	305.00	300.00	14.10	36
FERBG 11	7.30	5.00	300.00	360.00	200.00	21.20	40
FERBG 11/300	6.80	4.65	300.00	360.00	300.00	19.20	24
FERBG 12	8.00	5.55	350.00	415.00	200.00	28.90	30
FERBG 12/300	7.00	5.00	350.00	415.00	300.00	25.10	18
FERBG 13	7.40	5.30	400.00	465.00	200.00	31.80	25
FERBG 14	7.80	5.55	450.00	515.00	200.00	39.30	20
FERBG 15	8.00	5.80	500.00	565.00	200.00	47.50	15
FERBG 16	8.10	6.00	550.00	618.00	200.00	56.50	10
FERBG 17	8.40	6.20	600.00	670.00	200.00	66.40	10
FERBG 18	8.60	6.37	650.00	722.00	200.00	77.00	10
FERBG 19	8.80	6.50	700.00	774.00	200.00	88.35	5
FERBG 20	9.00	6.70	750.00	826.00	200.00	100.50	5
FERBG 21	9.20	6.80	800.00	880.00	200.00	113.50	5
FERBG 22	3.45	2.45	850.00	930.00	200.00	1.84	5

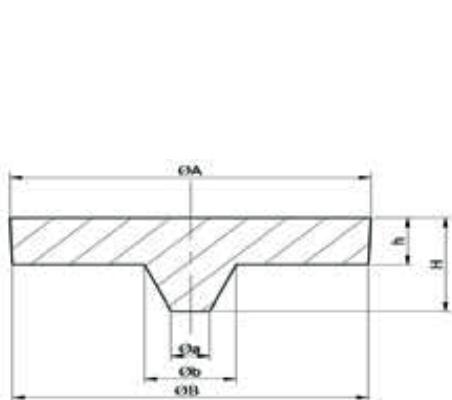
Note: Pallet quantities are valid for 100x120 pallets.

FERBG SERIES BREAKER CORES



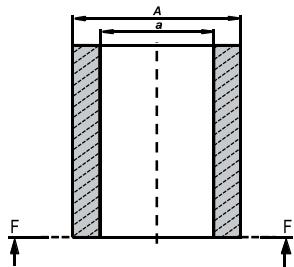
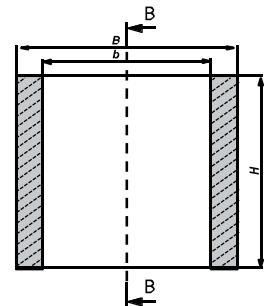
PRODUCT TYPE	DIMENSIONS (mm)			
	ØA	ØB	ØN	T
FERBG 3 MQ	105.00	108.00	43.00	10.00
FERBG 4 MQ	136.00	139.00	50.00	10.00
FERBG 5 MQ	159.00	161.00	60.00	12.00
FERBG 6 MQ	178.00	180.00	68.00	14.00
FERBG 7 MQ	192.00	202.00	78.00	14.00
FERBG 8 MQ	214.00	224.00	85.00	16.00
FERBG 9 - 9/300 MQ	236.00	246.00	90.00	16.00
FERBG 10 - 10/300 MQ	290.00	300.00	110.00	16.00
FERBG 11 - 11/300 MQ	343.00	356.00	135.00	20.00
FERBG 12 - 12/300 MQ	400.00	410.00	150.00	20.00
FERBG 13 MQ	450.00	460.00	165.00	25.00
FERBG 14 MQ	505.00	515.00	180.00	30.00
FERBG 15 MQ	550.00	560.00	250.00	40.00
FERBG 16 MQ	618.00	620.00	225.00	40.00

FERBG SERIES COVERS



PRODUCT TYPE	DIMENSIONS (mm)							VAULT
	ØA	ØB	Øa	Øb	h	H	Pch	
FERBG 3	110.00	109.00	10.00	25.00	13.00	30.00	750	
FERBG 4	130.00	129.00	13.00	33.00	15.00	37.00	600	
FERBG 5	160.00	159.00	16.00	40.00	14.00	41.00	350	
FERBG 6	180.00	179.00	18.00	45.00	15.00	45.00	270	
FERBG 7	205.00	204.00	20.00	51.00	16.00	50.00	150	
FERBG 8	230.00	229.00	23.00	57.00	17.00	55.00	120	
FERBG 9	250.00	249.00	25.00	63.00	17.00	59.00	100	
FERBG 10	305.00	304.00	30.00	76.00	18.00	69.00	55	
FERBG 11	360.00	359.00	36.00	90.00	21.00	80.00	25	
FERBG 12	410.00	409.00	41.00	103.00	20.00	89.00	20	

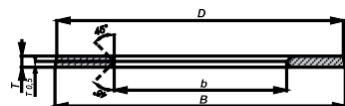
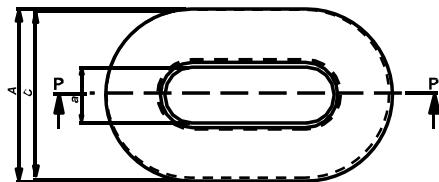
FEROBG SERIES FEEDER SLEEVES



PRODUCT TYPE	MODULE (cm)		DIMENSIONS (mm)						VOLUME dm ³	PALET Pcs
	FEROBG	GEOM	a	A	b	B	H			
FEROBG 3.5	2.30	1.50	38.00	68.00	144.00	174.00	120.00	0,62	714	
FEROBG 4	2.60	1.70	60.00	90.00	144.00	174.00	150.00	1.20	432	
FEROBG 4/300	3.10	2.20	60.00	90.00	144.00	174.00	300.00	2.30	216	
FEROBG 5	3.00	2.00	80.00	120.00	160.00	200.00	150.00	1.70	300	
FEROBG 5.5	3.30	2.30	85.00	125.00	175.00	215.00	200.00	2.60	225	
FEROBG 6	3.90	2.60	100.00	140.00	200.00	240.00	200.00	3.50	170	
FEROBG 6/300	4.20	2.80	100.00	140.00	200.00	240.00	300.00	5.30	102	
FEROBG 7	4.40	2.90	120.00	164.00	240.00	284.00	200.00	5.10	125	
FEROBG 7/300	4.80	3.20	120.00	164.00	240.00	284.00	300.00	7.70	100	
FEROBG 8	4.80	3.20	140.00	188.00	280.00	328.00	200.00	7.00	90	
FEROBG 8/300	5.60	3.70	140.00	188.00	280.00	328.00	300.00	10.50	54	
FEROBG 9	5.20	3.60	160.00	212.00	320.00	372.00	200.00	9.10	65	
FEROBG 9/300	5.90	4.10	160.00	212.00	320.00	372.00	300.00	13.70	39	
FEROBG 10	5.50	3.80	180.00	236.00	360.00	416.00	200.00	11.60	55	
FEROBG 10/300	6.40	4.40	180.00	236.00	360.00	416.00	300.00	17.30	33	
FEROBG 10.5/300	6.50	4.50	235.00	287.00	325.00	377.00	300.00	19.70	30	
FEROBG 11	6.10	4.20	200.00	260.00	400.00	460.00	200.00	14.30	45	
FEROBG 11/300	6.80	4.70	200.00	260.00	400.00	460.00	300.00	21.40	27	
FEROBG 12/300	7.50	5.20	230.00	296.00	455.00	521.00	300.00	28.00	18	
FEROBG 13/300	7.90	5.50	250.00	314.00	495.00	559.00	300.00	33.10	18	
FEROBG 14/300	8.80	6.10	300.00	359.00	600.00	659.00	300.00	48.20	12	
FEROBG 15/300	9.70	6.80	350.00	450.00	700.00	800.00	300.00	65.60	6	

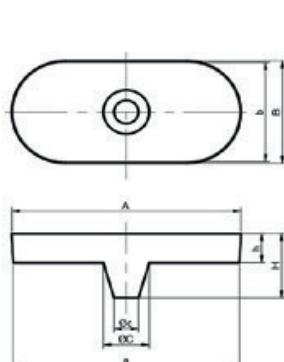
Note: Pallet quantities are valid for 100x120 pallets.

FEROBG SERIES BREAKER CORES



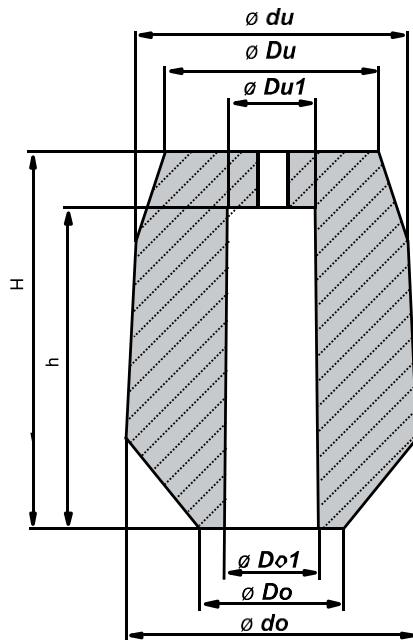
PRODUCT TYPE	DIMENSIONS (mm)						
	A	B	a	b	C	D	T
FEROBG 4 MQ	89.50	174.00	35.00	100.00	87.00	171.50	8.00
FEROBG 5 MQ	120.00	200.00	32.00	112.00	119.50	196.00	14.00
FEROBG 6 - 6/300 MQ	140.00	240.00	40.00	140.00	138.00	235.00	14.00
FEROBG 7 - 7/300 MQ	164.00	284.00	48.00	168.00	159.00	279.00	14.00
FEROBG 8 - 8/300 MQ	188.00	328.00	56.00	196.00	182.00	322.00	16.00
FEROBG 9 - 9/300 MQ	212.00	372.00	64.00	224.00	206.00	366.00	16.00
FEROBG 10 - 10/300 MQ	236.00	416.00	72.00	252.00	230.00	410.00	16.00
FEROBG 11 - 11/300 MQ	260.00	460.00	80.00	280.00	252.00	452.00	20.00
FEROBG 12 MQ	296.00	521.00	100.00	325.00	288.00	513.00	20.00
FEROBG 13 MQ	314.00	559.00	102.00	347.00	306.00	551.00	20.00

FEROBG SERIES COVERS



PRODUCT TYPE	DIMENSIONS (mm)									VAULT
	A	a	B	b	Øc	Øc	h	H	Pcs	
FEROBG 4	174.00	173.00	90.00	89.00	35.00	14.00	12.00	35.00	550	
FEROBG 5	200.00	199.00	120.00	119.00	40.00	16.00	15.00	38.00	400	
FEROBG 6	240.00	239.00	140.00	139.00	45.00	18.00	15.00	45.00	250	
FEROBG 7	284.00	283.00	164.00	163.00	51.00	20.00	15.00	49.00	150	
FEROBG 8	328.00	327.00	188.00	187.00	57.00	23.00	17.00	55.00	90	
FEROBG 9	372.00	371.00	212.00	211.00	63.00	25.00	18.00	60.00	70	
FEROBG 11	460.00	459.00	260.00	259.00	90.00	36.00	30.00	90.00	25	

MINI TYPE FEEDERS



PRODUCT TYPE	MODULE	DIMENSIONS (mm)								VOLUME	PALET
		cm	Ødo	ØDo	ØDo1	Ødu	ØDu	ØDu1	h	H	
FERMB 5	0.75	16.00	28.00	47.00	13.00	43.00	50.00	50.00	57.00	0.008	3186
FERMB 12	0.85	21.00	38.00	54.00	19.00	38.00	60.00	50.00	65.00	0.016	1944
FERMB 19	0.95	25.00	45.00	55.00	20.00	45.00	60.00	70.00	80.00	0.028	1944
FERMB 20	1.30	21.00	40.00	70.00	18.00	50.00	77.00	84.00	100.00	0.025	1242
FERMB 22	1.30	16.00	40.00	63.00	13.00	40.00	68.00	70.00	85.00	0.012	1620
FERMB 27	1.30	25.00	45.00	72.00	23.00	56.00	77.00	85.00	100.00	0.038	1242
FERMB 40	1.30	32.00	60.00	80.00	28.00	60.00	88.00	80.00	90.00	0.057	972
FERMB 61	1.70	36.00	57.00	85.00	32.00	59.00	87.00	97.00	107.00	0.088	810
FERMB 88	1.90	36.00	60.00	83.00	32.00	60.00	88.00	97.00	110.00	0.088	810
FERMB 121	1.90	40.00	66.00	96.00	35.00	66.00	102.00	110.00	135.00	0.122	540
FERMB 159	2.20	50.00	82.00	110.00	41.00	72.00	1115.00	100.00	120.00	0.163	450
FERMB 164	2.50	60.00	90.00	130.00	50.00	70.00	126.00	100.00	122.00	0.238	360
FERMB 193	2.80	58.00	100.00	140.00	48.00	80.00	136.00	125.00	140.00	0.276	324
FERMB 237	3.20	66.00	95.00	150.00	64.00	75.00	145.00	120.00	145.00	0.398	270
FERMB 337	4.20	63.00	63.00	164.00	57.00	97.00	154.00	170.00	210.00	0.481	180
FERMB 339	3.50	65.00	100.00	120.00	56.00	90.00	135.00	120.00	142.00	0.345	270
FERMB 532	4.20	60.00	90.00	170.00	90.00	120.00	165.00	170.00	210.00	0.761	216
FERMB 655	4.20	80.00	80.00	170.00	90.00	120.00	165.00	165.00	210.00	0.937	216
FERMB 718	4.80	85.00	85.00	235.00	80.00	130.00	220.00	192.00	242.00	1.026	40
FERMB 1730	5.20	100.00	110.00	283.00	110.00	160.00	273.00	285.00	365.00	2.468	24

Note: Pallet quantities are valid for 100x120 pallets.

RESINS

NO BAKE PROCESS

- Alp Haset Resins (Phenolic Ester Cured System)
- Furan and Phenolic Resins (Acid Cured System)

GAS CURED PROCESS

- Sigmacure Cold Box Resins (Amine Cured System)
- Betaset Cold Box Resins (MF Cured System)
- Alkafen Resins (CO₂ Cured System)

HOT BOX RESINS

THERMOSHOCK RESINS

EXOTHERMIC MATERIALS

- Insulating Sleeves
- Exothermic Sleeves
- Highly Exothermic Sleeves
- Highly Exothermic Mini Sleeves
- Feeding Compounds
- Mouldable Exothermic Compounds

MOULD AND CORE COATINGS

ADHESIVES

COATED SANDS

INDUSTRIAL RESINS

CHROMITE SAND

CERAMIC SAND

NO-BAKE ALFONOL RESINS

	FERALF-A-38	FERALF-A-38NSF**	FERALF-A-41	FERALF-A-9377	FERALF-A-180
Type	*FF	FF	FF	FF	FF
Appearance	Light straw color to dark red, liquid				
Application Area	Steel / Ductile Iron / Cast Iron / Non-Ferrous				
Catalyst Used	AS / AKS Serie	AS / AKS Serie	AS / AKS Serie	AS / AKS Serie	AS / AKS Serie
Solids Content (100°C, 3 h, %)	54 - 59	50 - 54	49 - 54	50 - 56	48 - 52
Density (20°C, g/mL)	1,23 - 1,25	1,22 - 1,25	1,21 - 1,25	1,20 - 1,25	1,20 - 1,25
Viscosity (FC4, 25°C, sec)	15 - 20	20 - 30	15 - 25	20 - 30	15 - 20
Free Formaldehyde Amount (%)	max 0.1	max 0.1	max 0.1	max 0.1	max 0.1
pH (25°C)	12.00 - 13.20	12.00 - 13.20	12.00 - 13.20	12.00 - 13.20	12.50 - 13.75
Nitrogen Content (%)	0,8 - 1,2	Nitrogen free	0,7 - 1,0	max. 0,5	max. 0,5
Stock Period	In a closed package, away from heat and sun, in a cool and dry place at 20°C, 6 months				
Amount of Use (By Weight of Sand, %)	1,2 - 1,6	1,2 - 1,6	1,2 - 1,6	1,2 - 1,6	1,2 - 1,6
Catalyst Addition Amount (By Weight of Resin, %)	20 - 25	20 - 25	20 - 25	20 - 25	20 - 25

	FERALF-A-48	FERALF-A-49	FERALF-A-70	FERALF-A-72	FERALF-A-75	FERALF-A-85
Type	*FF	FF	FF	FF	FF	FF
Appearance	Light straw color to dark red, liquid					
Application Area	Steel / Ductile Iron / Cast Iron / Non-Ferrous					
Catalyst Used	AS/AKS Series	AS/AKS Series	AS/AKS Series	AS/AKS Series	AS/AKS Series	AS/AKS Series
Solids Content (100°C, 3 h, %)	50 - 56	47 - 53	54 - 59	49 - 54	54 - 60	45 - 49
Density (20°C, g/mL)	1,20 - 1,23	1,18 - 1,23	1,23 - 1,25	1,22 - 1,24	1,23 - 1,25	1,19 - 1,22
Viscosity (FC4, 25°C, sec)	20 - 30	20 - 30	15 - 30	15 - 25	20 - 30	15 - 25
Free Formaldehyde Amount (%)	max 0.1	max 0.1	max 0.1	max 0.1	max 0.1	max 0.1
pH (25°C)	12.40 - 13.00	12.40 - 13.00	12.60 - 13.60	12.50 - 13.60	12.60 - 13.60	13.50 - 14.00
Nitrogen Content (%)	0,3 - 0,5	0,3 - 0,5	max.0,5	0,3 - 0,5	max. 1,5	max. 0,5
Stock Period	In a closed package, away from heat and sun, in a cool and dry place at 20°C, 6 months					
Amount of Use (By Weight of Sand, %)	1,2 - 1,6	1,2 - 1,6	1,1 - 1,6	1,1 - 1,6	1,1 - 1,6	1,2 - 1,6
Catalyst Addition Amount (By Weight of Resin, %)	20 - 25	20 - 25	20 - 25	20 - 25	20 - 25	20 - 25

Notes:

*FF: Phenol Formaldehyde

**: Does not contain nitrogen.

NO-BAKE ALFONOL RESINS

Compressive Strength (kg/cm ²)	FERALF A-38	FERALF A-38 NSF	FERALF A-41	FERALF A-9377	FERALF A-180
1 Hour	18	18	18	18	20
2 Hour	24	24	24	24	25
3 Hour	28	28	28	28	30
24 Hour	48	48	48	48	48
Stripping Time (min)	8 - 15	8 - 15	8 - 15	8 - 15	8 - 15

Compressive Strength (kg/cm ²)	FERALF A-48	FERALF A-49	FERALF A-70	FERALF A-72	FERALF A-75	ALFANOL A 85
1 Hour	18	18	18	18	18	17
2 Hour	24	24	28	24	28	20
3 Hour	28	28	34	28	34	24
24 Hour	48	48	54	48	54	35
Stripping Time (min)	8 - 15	8 - 15	8 - 15	8 - 15	8 - 15	8 - 15

Serter Features						
Serter	FERAS-5	FERAS-6	FERAS-07	FERAS-8	FERAS-09	
View	Clear Liquid					
Density (20°C, g/mL)	1.20 - 1.21		1.17 - 1.18		1.16 - 1.18	1.14 - 1.16
Average Stripping Time (25°C, min)	3		5		5 - 7,5	8 - 15
Serter	FERAS-10	FERAS-11	FERAS-12	FERAS-13	FERAS-14	
View	Clear Liquid					
Density (20°C, g/mL)	1.13 - 1.15		1.11 - 1.12		1.05 - 1.07	1.04 - 1.06
Average Stripping Time (25°C, min)	30 - 50		50 - 70		90 - 120	*
Serter	FERAKS-1006	FERAKS-1010	FERAKS-1020	FERAKS-1035	FERAKS-1050	FERAKS-1075
View	Clear Liquid					
Density (25°C, g/mL)	1.188 - 1.198		1.155 - 1.169		1.156 - 1.166	1.130 - 1.150
Average Stripping Time (25°C, min)	4 - 6		8 - 10		17 - 20	25 - 35
Serter	FERAKS-1506	FERAKS-1510	FERAKS-1520	FERAKS-1535	FERAKS-1550	FERAKS-1575
View	Clear Liquid					
Density (25°C, g/mL)	1.190 - 1.220		1.123 - 1.135		1.136 - 1.152	1.153 - 1.162
Average Stripping Time (25°C, min)	4 - 6		8 - 10		17 - 20	25 - 35

Serters are ordered from winter serters to summer serters.

* Valid for hot sand applications.

WARNING

- Never mix resin and hardener directly with each other. In case of direct mixing with each other, severe exothermic reaction occurs. AIR CURING ALFONOL RESINS
- The rate of resin incorporation into the sand may be higher or lower than the recommended values, depending on the sand properties; however, the caster is always used 20% - 25% of the resin is mixed into the sand.
- Stripping time varies depending on the air temperature and mould/bench dimensions. Slower in hot weather, faster in cold weather serters should be used.

NO-BAKE FURAN RESINS

Air-curing furan resin is used as a binder in molds and cores.

	FERFUR CS-120	FERFUR CS-121	FERFUR CS-126	FERFUR CS-300 LF	FERFUR FU-1100	FERFUR CS-1003	FERFUR CS-2055
Type (*, **, ***)	UF / FA	UF / FA	UF / FA	FF / FA	FF / FA	FF / FA	FF / FA
View	Light straw color, liquid	Light straw color, liquid	Light straw color, liquid	With light straw color reddish brown to brown, liquid	With light straw color reddish brown to brown, liquid	With light straw color reddish brown to brown, liquid	Dark red, clear, liquid
Application Area	Ferrous / Non-Ferrous					Steel / Ductile Iron / Pig	
Catalyst	CS SERIES						
Furfuryl Alcohol Amount****	High	Middle	Middle	Middle	Middle	High	Middle
Nitrogen Amount(%)	7,8 - 8,3	10,7 - 11,3	9,1 - 10,5	Nitrogen Free			max. 0,58
Solids Amount (150°C, 2 h, %)	37 - 45	52 - 58	40 - 48	54 - 61	50 - 55	44 - 48	44 - 52 (135°C)
Density (20°C, g/mL)	1,18 - 1,24	1,10 - 1,24	1,17 - 1,21	1,18 - 1,24	1,18 - 1,24	1,16 - 1,20	1,16 - 1,25
Viscosity (FC4, 25°C, sec)	20 - 45 (20°C)	45 - 65 (20°C)	16 - 30	25 - 45	20 - 35	15 - 25	10 - 25
Free Formaldehyde Amount (%)	max. 2,5	max. 2,5	max. 3,0	max. 2,5	max. 1,5	max. 2,5	max. 0,75
pH(25°C)	6,4 - 7,2	6,4 - 7,2	6,7 - 7,9	7,8 - 8,3	7,8 - 8,3	7,8 - 8,3	6,0 - 7,0
Stock Period	In closed packaging, away from heat and sun, in a cool and dry place at 20°C, 9 months						
Utilisation Amount (By Weight of Sand, %)	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5
Catalyst Addition Amount (By Weight of Resin, %)	25 - 50	25 - 50	25 - 50	25 - 45	25 - 45	25 - 45	25 - 45

	FERFUR CS-470	FERFUR CS 2050	FERFUR CS 2056	FERFUR CS 1077	FERFUR CS 1085	FERFUR CS 490	FERFUR CS 4905	FERFUR CS 945
Type (*, **, ***)	FF / FA	FF / FA	FF / FA	UF / FA	FF / FA	FF / FA	FF / FA	FA
View	Straw colour to dark red, liquid	Dark red, clear, liquid	Dark red, clear, liquid	Light straw color, liquid	Dark red liquid	Straw colour to dark red, liquid	Straw colour to dark red, liquid	Dark red liquid
Application Area	Steel Ductile Iron / Pig	Steel / Ductile Iron / Pig Non-Ferrous	Ductile Iron / Pig	Steel / Ductile Iron / Pig				
Catalyst	CS SERIES							
Furfuryl Alcohol Amount****	High	Middle	Middle	High	High	High	High	High
Nitrogen Amount(%)	Nitrogen Free	max. 0,5	Nitrogen Free	max. 3,0	max. 0,21	Nitrogen Free	max. 0,50	Nitrogen Free
Solids Amount (150°C, 2 h, %)	max. 0,3	44-52 (135°C)	44-52 (135°C)	10 - 14	15 - 22	8 - 10	8 - 10	-
Density (20°C, g/mL)	25 - 30	1,16 - 1,25	1,16 - 1,25	1,12 - 1,16	-	1,13 - 1,15	1,13 - 1,15	1,10 - 1,15
Viscosity (FC4, 25°C, sec)	1,14 - 1,16	10 - 25	10 - 25	10 - 14	10 - 15	10 - 13	10 - 15	10 - 13
Free Formaldehyde Amount (%)	12 - 15	max. 0,75	max. 1,2	max. 0,3	max. 0,8	max. 0,3	max. 0,3	-
pH(25°C)	8,0 - 9,0	6,0 - 7,0	6,0 - 7,5	7,0 - 8,0	6,5 - 7,5	7,0 - 9,0	7,0 - 9,0	-
Stock Period	In closed packaging, away from heat and sun, in a cool and dry place at 20°C, 9 months							
Utilisation Amount (By Weight of Sand, %)	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5	0,8 - 1,5
Catalyst Addition Amount (By Weight of Resin, %)	25 - 45	25 - 45	25 - 45	25 - 45	25 - 45	25 - 45	25 - 45	25 - 45

Notes:

*FF: Phenol Formaldehyde

**: Does not contain nitrogen.

NO-BAKE FURAN RESINS

Compressive Strength (kg/cm ²)	FERFUR CS-120	FERFUR CS-121	FERFUR CS-126	FERFUR CS-300 LF	FERFUR FU-1100	FERFUR CS-1003	FERFUR CS-2055
1 Hour	28	28	20	32	32	38	30
2 Hour	54	54	30	44	44	56	46
3 Hour	62	62	40	54	54	64	56
24 Hour	90	90	55	68	68	84	64
Stripping Time (min)	10 - 30	10 - 30	8 - 25	7 - 19	7 - 19	6 - 16	7 - 25

Compressive Strength (kg/cm ²)	FERFUR CS-470	FERFUR CS-2050	FERFUR CS-2056	FERFUR CS-1077	FERFUR CS-1085	FERFUR CS-490	FERFUR CS-4905	FERFUR CS-945
1 Hour	25	30	30	18	20	25	25	25
2 Hour	40	46	46	40	40	40	46	50
3 Hour	56	56	56	50	60	56	56	60
24 Hour	64	64	64	60	80	64	64	68
Stripping Time (min)	7 - 28	7 - 25	7 - 25	10 - 40	7 - 25	7 - 28	7 - 28	15 - 25

Serter Features

Serter	FERCS 65/25	FERCS 40/20	FERCS 30/80	FERCS 30	FERCS 30/20	FERCS 30/30	FERCS 30/40	*FERCS 12	*FERCS 13
View				Light Brown Liquid				Clear Liquid	
Density (20°C, g/mL)	1.27-1.37	1.25-1.30	1.22-1.27	1.20-1.23	1.16-1.20	1.14-1.16	1.13-1.14	1.63-1.69	1.63-1.65

Serters are ordered from winter serters to summer serters.

BETANOL RESINS

Phenol formaldehyde type alkali resins cured with methyl formate gas.

	FERBET-B-56C	FERBET-B-69
Type (*)	FF	FF
View	Light yellow to dark red, liquid	
Application Area	Steel / Ductile Iron / Cast Iron / Non-Ferrous	
Solids Amount (150°C, 2 h, %)	56 - 63	56 - 63
Density (20°C, g/mL)	1.24 - 1.26	1.24 - 1.26
Viscosity (FC4, 25°C, sec)	20 - 40	20 - 40
Free Formaldehyde Amount (%)	max 0.1	max. 0.1
pH(25°C)	12.50 - 13.30	12.50 - 13.30
Stock Period	In closed packaging, away from heat and sun, in a cool and dry place at 20°C, 6 months	5 months
Utilisation Amount (By Weight of Sand, %)	1.8 - 2.0	1.8 - 2.0
Catalyst Addition Amount (By Weight of Resin, %)	30	30

Serter Features

Serter	BES 10 – FERBE-10
View	Colorless or light yellow, viscous liquid
Density (20°C, g/mL)	0.975 - 0.978
Stock Period	In closed packaging and below 20°C, 2 years

Application

- Firstly, clean, cooled dry sand is loaded into the well cleaned mixer.
- Resin is added and mixed.
- The mixture is blown into the core box and hardened by passing gas through the core box.

WARNING

- Serter is applied to the moulds and cores in gaseous form after evaporation in a specially prepared gas generator.
- Serter should be stored in a tightly closed container at temperatures below 30°C.

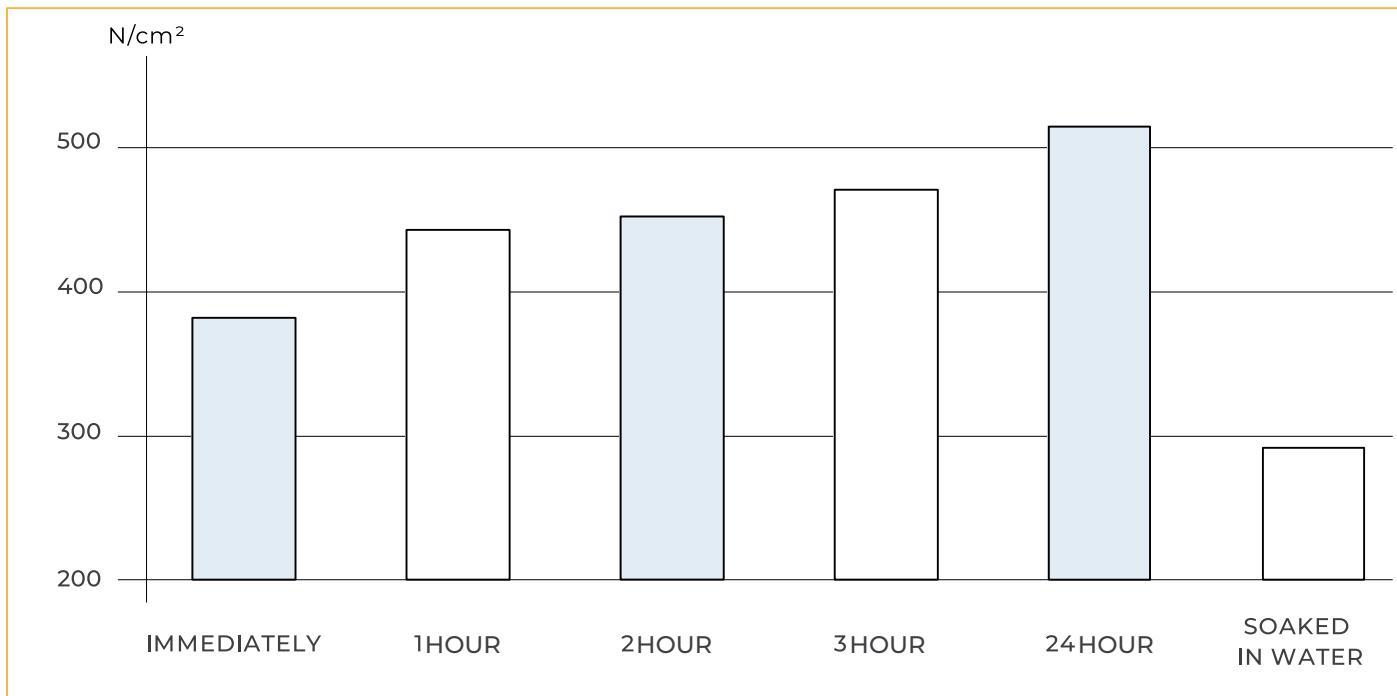
NOT: *FF: Phenol Formaldehyde

PU COLD BOX RESINS

PU COLD BOX resins are polyurethane cold box resin type that cures with Amine Gas (DMEA, TEA or DMIPA). Part I and Part II resins are used in sets.

	FERFEN-1055 PART I	FERIZO-2098 PART II
Type (*)	Phenolic Resin	Isocyanate Resin
View	Clear liquid of light yellow color	Dark brown liquid
Solids Amount (100°C, 2 h, %)	45 - 55	91 - 95
Density (20°C, g/mL)	1.05 - 1.15	1.15 - 1.18
Viscosity (FC4, 25°C, sec)	25 - 50	20 - 50
Free Formaldehyde Amount (%)	max 0.5	-
Stock Period	6 months in a closed package, away from heat and sun, in a cool and dry place at 20°C	

PU COLD BOX



ALKAFEN RESINS

Cold box resins that harden with carbon dioxide gas. It is used as a binder in all kinds of metal casting, production of cores and molds. It is recommended to use alcohol-based refractory paint.

	FERALK-C-150	FERALK-C-155	FERALK-C-3287
Type (*)	FF	FF	FF
View	Dark Red to Brown Clear Liquid		
Application Area	All Types of Metal Casting		
Solids Amount (100°C, 3 h, %)	62 - 67	63 - 68	62 - 67
Density (20°C, g/mL)	1.27 - 1.31	1.26 - 1.33	1.26 - 1.33
Viscosity (FC4, 25°C, sec)	80 - 110	80 - 110	80 - 110
Free Formaldehyde Amount (%)	max 0.5	max 0.5	max 0.5
pH(25°C)	12.50 - 13.30	12.50 - 13.30	12.50 - 13.30
Stock Period	In a sealed package, away from heat and sun, in a cool, dry place at 20°C, 6 months		
Utilisation Amount (By Weight of Sand, %)	2.4 - 3.5	2.4 - 3.5	2.4 - 3.5

Shear Strength (N/cm²)	FERALK-C-150	FERALK-C-155	FERALK-C-3287
Immediately.	100	100	100
1 hour	150	150	150
2 hour	150	150	150
24 hour	150	150	150

Mixture Ratios

Resin	According to Sand Weight % 2.5
CO ₂ Pressure (bar)	0.5

Characteristics of the Sand Used

Sand Type	Silica Sand
AFS No	45 - 50
Combustion Loss (%)	max 0.2
Clay Amount (%)	max 0.3

HOT BOX RESINS

Hot Box Resins are thermosetting resins.

	FERHB-9755	FERHB-21	FERHB-687	FERFPR-24	FERFGR-9405
Type (*, ** , ***)	FF	UF/FA	UF	UF/FF	FF
View	Light straw to chestnut coloured liquid	Light straw coloured liquid	White to light straw liquid	Light straw to chestnut coloured liquid	Light straw to chestnut colou-red liquid
Application Area	Ductile / Pig / Non-Ferrous	Pig / Aluminum / Bronze	Ductile Iron / Pig / Bronze	Pig / Aluminum / Bronze	Pig / Aluminum / Bronze
Catalyst	HBS 28	NF 1	FC 30 / SC 44	SC 44	HBS 28
Furfuryl Alcohol Amount****	0	Low	0	0	0
Solids Amount (150°C, 2 h, %)	75 – 79 (135°C, 1 sa, %)	58 - 62	59.5 - 63.5	65 - 69	68 - 74
Density (20°C, g/mL)	1.20 - 1.25	1.25 - 1.28	1.25 - 1.30	1.23 - 1.27	1.19 - 1.23
Viscosity (FC4, 25°C, sec)	20 - 30 (FC2)	80 - 100	80 - 125	135 - 155	70 - 85
Free Formaldehyde Amount (%)	max. 1	max. 5	max 1.5	5 - 7	max 1.5
pH(25°C)	6.8 - 7.2	7.4 - 8.1	7.5 - 8.5	7.6 - 8.2	7.0 - 8.0
Stock Period	It should be stored in closed packaging, away from heat and sun, in a cool and dry place at 20°C.				
	2 month	6 month	3 week	7 week	7 week
Resin Usage Amount (By Weight of Sand, %)	2.5	2.0 - 2.5	1.0 - 2.0	2.5	2.0 - 2.5
Catalyst Usage Amount (By Weight of Resin, %)	25	25	25 - 30	25	25

Notes

(*): FF: Phenol Formaldehyde

(**): FA: Furfuryl Alcohol

(***): UF: Urea Formaldehyde

(****): FA Amount: LOW up to 30%, MEDIUM from 30% to 60%, HIGH 60% and above

HOT BOX RESINS

Resins	Serter	Cooking Ti-me(sec)	Hot Tensile Strength (N/inch ²)	Cold Tensile Strength (N/inch ²)
FERHB-9755	FERHBS-28	10	150	450
		30	260	1150
		45	450	1250
		60	500	1400
FERHB-21	FERNB1	10	130	750
		30	250	1000
		45	350	1300
		60	480	1480
FERHB-687	FERSC-44	10	120	400
		30	200	500
		45	250	600
		60	350	700
FERFPR-24	FERFC-26/8	10	150	900
		30	250	1150
		45	350	1400
		60	450	1500
FERFGR-9405	FERHBS-28	10	150	550
		30	250	600
		45	350	1200
		60	450	1500

Serter Features

Serter	FERNF-1	FERFC-30	FERFC-26/8	FERSC-44	FERHBS-28
View		Colorless or Light Yellow Liquid			Black Liquid
Density (20°C, g/mL)	1.14 - 1.17	1.14 - 1.17	1.14 - 1.17	1.14 - 1.17	1.27 - 1.30
Viscosity (FC4, 20°C, sec)	10 - 12	10 - 12	10 - 12	10 - 12	8 - 10

TERMOSHOCK RESIN SYSTEMS

Thermosetting resins are resins that harden with heat.

	FERTS-33	FERTS-44
Type (*, **, ***)	FF/ UF	UF/ FA
View	Light straw coloured to chestnut coloured liquid	Light straw coloured to chestnut coloured liquid
Catalyst	Serter T - 20 Pro-tector K - 65	Serter FC 103 Protector K - 65
Furfuryl Alcohol Amount****	0	Orta
Solids Amount (150°C, 2 h, %)	min. 66	65 - 71
Density (20°C, g/mL)	1.27 - 1.32	1.24 - 1.29
Viscosity (FC4, 25°C, sec)	80 - 90	50 - 65
Free Formaldehyde Amount (%)	max. 5,0	max. 5,0
pH(25°C)	7.5 - 8.2	6.7 - 7.6
Stock Period	4 week	4 month
	It should be stored in closed packaging in a cool and dry place away from heat and sun at 20°C.	
Resin Usage Amount (By Weight of Sand, %)	2 - 2.5	2 - 3
Catalyst Usage Amount (By Weight of Resin, %)	%10 Serter T-20 %10 Protector K-65	%10 Serter FC-103 %10 Protector K-65

Resins	Cooking Ti-me(sec)	Hot Tensile Strength (N/inch ²)	Cold Tensile Strength (N/inch ²)
FERTS-33	8	40	62
	10	42	62
	12	40	60
FERTS-44	8	44	70
	10	46	68
	12	44	68

Serter Features		
Serter	FERT20	FERT103
View	Colorless to light yellow liquid	
Density (20°C, g/mL)	1.14 - 1.17	1.14 - 1.17
pH(25°C)	6.7 - 7.3	6.6 - 7.2

Notes

(*): FF: Phenol Formaldehyde

(**): FA: Furfuryl Alcohol

(***): UF: Urea Formaldehyde

(****): FA Amount: LOW up to 30%, MEDIUM from 30% to 60%, HIGH 60% and above

EXOTHERMIC FEEDER POWDERS

Product Name	Reaction Start Time (sec)	Reaction Time (sec)	Density (g/cm³)	Exothermic Property	Insulation Property	Feeder Diameter (mm)
FER T 7	20 - 35	35 - 60	0.90 - 1.15	MEDIUM	LOW	80 - 160
FER T 10	20 - 60	50 - 100	0.90 - 1.00	MEDIUM	MEDIUM	100 - 200
FER T 13	75 - 140	45 - 75	0.70 - 0.80	MEDIUM	HIGH	160 - 250
FER T 75	4 - 7	10 - 15	1.15 - 1.20	HIGH	LOW	80 - 160

Product Name	Grain Size (AFS No)	Reaction Start Time (sec)	Reaction Time (sec)	Aluminum Amount (%)	Density (g/cm³)	Dry Strength (g/cm²)
FER K 3	65 - 75	20 - 35	110 - 130	24 - 26	1.15 - 1.20	40
FER K 50	35 - 60	80 - 130	150 - 250	min 16	1.30 - 1.40	40 - 65

Inner Diameters of Feeder Liners Made with Moldable Powders According to Casting Alloy Type (mm)

Product Name	Cast Iron	Steel	Copper	Light Metals
FER K 3	65 - 75	20 - 35	110 - 130	> 100
FER K 50	35 - 60	80 - 150	150 - 250	-

CASTING AUXILIARY MATERIALS

Tanfiks - T	
Type.	Air curing adhesive
Moisture Content (%)	20 - 32
Curing Time (220°C, min)	10
Stock Period (20° C)	3 month
Definition	Used for bonding cores and molds in the casting industry.
Sealant Mortar	
Type.	Filling Material
Moisture Content (%)	7.5 - 8.5
Combustion Loss (%)	27 - 29
Stock Period (20° C)	4 month
Definition	In molds, it is applied by placing it between the degrees to prevent metal leakage and reduce burr formation.
FER-SSY 135-05	
Type.	Hot to hot adhesive
Application Bomesi	25 - 45
Hardening Time (220°C, sec)	max. 90
Stock Period (20°C)	4 month
Definition	It is used for bonding hot molds and cores obtained by shell method in the mold industry.
FER-TRK 5	
Type.	Additive Material
Viscosity (DIN4, 25°C, sec)	10 - 20
Stock Period (20° C)	3 month
Density (20°C, g/mL)	1.35 - 1.45
Definition	It is added to the sand mixture in the thermal reclamation unit.
FER-FILL 170	
Type.	Filling Mortar
Combustion Loss (%)	25 - 35
Stock Period (20° C)	3 month
Definition	Used in water-based paint applications.

SHELL SANDS

Product Name	Grain Size (AFS No)	Hot Tensile Strength (kg/cm ²)	Burn Loss (%)	Gas Amount (cm ³ /g)
SHELL SAND FER-010	45 - 50	5 - 9	1.50 - 1.90	7 - 10
SHELL SAND FER-115	50 - 55	7 - 10	2.20 - 2.50	9 - 11
SHELL SAND FER-215	60 - 65	7 - 10	2.20 - 2.50	9 - 11
SHELL SAND FER-225	60 - 65	11 - 13	2.60 - 2.90	10 - 12
SHELL SAND FER-230	60 - 70	13 - 16	3.00 - 3.30	20 - 24
SHELL SAND FER-235	60 - 65	16 - 20	3.10 - 3.40	12- 14
SHELL SAND FER-240	60 - 65	20 - 25	4.00 - 4.30	14 - 20
SHELL SAND FER-250	60 - 65	25 - 30	4.30 - 4.70	21 - 25
SHELL SAND FER-335	80 - 90	9 - 14	3.10 - 3.40	12 - 14
SHELL SAND FER-350	80 - 90	18 - 23	4.30 - 4.70	16 - 20



CHROMITE SAND

	Cr2O3	SiO2
Chromite Sand	46 % min	1.0 % max
Size	AFS 40-45 / AFS 45-50 / AFS 50-55	
Packing	1 mt big-bag	



FERRORE



Head Office

Konya OSB B.Kayacık Mh.

T. Ziyaeddin Cd.No:31 - P.O. - 42250

Selçuklu / Konya / TÜRKİYE

+90 212 320 42 16

+90 536 402 10 95

+90 532 113 81 40

info@ferrore.com.tr

export@ferrore.com.tr

Istanbul Branch

Pınar Tepe Mah Yavuz Sultan Selim Bulvarı

No:6 Beyaz Plaza Kat:5 /45

Büyükçekmece / İstanbul / TÜRKİYE