simonsen
& sons ltd

News-Letter - November 1990

Now it is again time to inform you a little bit about, what has happened since the last news-letter which was distributed a year ago.

One can conclude that 1990 has been a special year in several ways.

THE NEXT GENERATION

The family had a new member added. Tove and I became grandparents to a beautiful little girl who was born by Klaus' wife on April 10, 1990. She has been christened

SARA BANHOLM SIMONSEN

and it is fantastic what such a little creature does to you. Through Sarah the succession of the company might be secured, but maybe there will also be some boy coming along the line, but on the other hand in these women-lib times, what is wrong with a female president?

AN UNEXPECTED VACATION IN DENMARK

On June 26 I was driving my Volvo 740 and unfortunately a car coming towards me drove into my side of the road and I had a frontal collision. That cost me the larger part of my right knee cap and a very large scratch in my forehead. I spent most of the summer in bed and at home, and I am now nearly fully recovered, even though it may last many months, before I can use my leg as well as I could before, though it is doubtful whether it will ever be working a hundred per cent as it did before.

Anyway, considering that a Volvo 740 was completely crashed by the accident and was trashed afterwards, one should be more than grateful that one survived at all, and I am.

In some ways it was a very good experience, because I got to know the Danish hospital system from the inside. I saw how efficient and kind the Danish police is to citizens who get into troubles, and I was spoiled by friends, business friends, and the family during the whole summer, and as we had a nice weather, I have for a long time not spent so much time at home one summer and enjoyed it so much.

So as I use to say, "nothing is so bad that it is not good for some-thing."

NEW COMPANY NAME

The company has changed its name again and is now called

SIMONSEN & SONS LTD

Most of you has already seen it in our letter head etc., on the letters which you have been receiving within the last 6 months.

SHIPPING MANAGER

Also due to our extended business we have as from the 1st of October permanently employed a shipping manager, namely

Mrs. Marianna Simonsen

who is married to Morten and who is now responsible for all our shipments with direct reference to Klaus. Marianna is assisted by Lene Ellingsøe.

NEW UK COMPANY

We are fortunately doing quite some business with the UK smelters. As some of the products we are reselling are coming from English sources, and we have to do some adding of the English VAT to our invoices, we had to establish an office in the UK, and this was established as from November 1, 1990, under the name

SIMONSEN & SONS (UK) LTD.
12 Charlton Park House
Malmesbury
Wiltshire SN16 9DG
UNITED KINGDOM

Tel.no.: Int. 44 (666) 822 995
Fax.no.: Int. 44 (666) 822 746

This company is meant only for handling the business effected between us and English clients. But as you can see we are extending, having our office in Denmark, Refract GmbH in Lüneburg, plus now the new company in the UK.

Generally, we must say that the business has been very good for us over the last year. We have never had a larger turnover, and fortunately we have now been approved by so many of the smelters that we get the inquiries regularly, and we try to serve and reply to these in our usual efficient way. We are really doing well and have now passed the 5 years of existence. We are close to 6 years in business now, and we are doing better and better year by year and that is thanks to our clients all over the world + our outstanding suppliers.

In order to stay in the market we have to be more innovative, supply better qualities, be competitive on prices, and also bring new products to the market place, what we are trying to do all the time. Below we shall give you a few of the extra additions to our range of products which might be of interest to quite a few of you.

NEW PRODUCTS

Cathode Blocks

As from mid 1990 we concluded a contract with

SADECKIE ZAKLADY ELEKTRO WEGLOWE
ul Wegierska 188
P.O.Box 152
33-300 Nowy Sacz
POLAND
Tel.no.: Int. (18) 233 13
Fax.no.: Int. (18) 233 10
Tlx.no.: 322316 szew pl

who are producing excellent cathode blocks. This is an entirely new area for us. However, we have already got inquiries and have offered these blocks to various clients in the areas we are dealing with. We do not have an exclusivity for the whole world. From the start we have got some selected areas in which to promote these blocks, and these areas which are under our jurisdiction have already received data sheets and information about our presence in that particular market with these blocks.

The Poles have the same philosophy as the one we have, namely

A. You must supply a good quality
B. You must be competitive on pricing

Previously, the Poles might not have been as well organized as they are today, but the changes in Eastern Europe and the fact that we are dealing directly with the producer without any government intermediaries involved in the business, we have had established a very good cooperation with our Polish friends, and the efficiency is very high. We get replies within one day to our inquiries or other questions, and I think that those who have been dealing with us so far concerning these blocks seem to be fairly well aware of it that things do happen, when we get inquiries for the Polish products. We expect a lot from these products in the future.

Silicon Carbide Bricks

It has always been a strong desire for us to include silicon carbide bricks in our package. We have made a deal with

CARBORUNDUM RESISTANT
MATERIALS LIMITED
Mill Lane, Rainford
St. Helens
Merseyside WA11 8LP
UNITED KINGDOM

Tel.no.: Int. (74) 488 29 41
Fax.no.: Int. (74) 488 35 14
Tlx.no.: 627336

for several markets to which we will be offering the silicon carbide bricks and blocks.

Any inquiry you might have, please do not hesitate to contact us, the clients in the areas, in which we can sell these silicon carbide products, shall receive details and data sheets concerning these products.

Low Cement Castable

Höganäs of Sweden is no longer one of our suppliers. We have instead made an arrangement with

NATIONAL REFRACTORIES & MINERALS
41738 Esterly Drive
P.O.Box 47
Columbiana
Ohio 44408
U.S.A.

Tel.no.: Int. (216) 482 3841
Fax.no.: Int. (216) 482 2330

to market their low cement castable worldwide except in North America and a few other countries. This new product

KRICON - 28

is from our side mainly meant as a barrier layer in electrolytic furnaces.
We enclose a copy of the National Refractories data sheet. We will, however, make our own data sheets within shortly.

Heavy Vermiculite Silicate Slabs - PRO-LITE G

Unfortunately, we could not maintain the same desired high quality of these slabs from Kramer's plant. We have therefore stopped producing these heavy vermiculite slabs for a while, but expect to be able to supply these blocks again latest mid 1991. Our suppliers will invest in new equipment, such as a new press, for producing this special type of vermiculite slabs.

Heavy Calcium Silicate Boards

As I told you in the last news-letter our supplier, Siborit Gmbh in Lüneburg, the world's finest producer of calcium silicate slabs today, recently invested some 8 million DEM in new equipment. You will be surprised, when you see their new press, their machining equipment, and their plastic packing equipment. It is not found more sophisticated or efficient in any other factory in the world. I guarantee. The extension was also made in order to be able to produce heavy calcium silicate boards used in very large numbers for the various cast houses in the aluminum smelters. We have secured the exclusive sales in certain markets of these heavy calcium silicate boards which are up to today's standards. I would even say that the Germans have developed qualities which are better than some of the products existing today, and the markets to which we will be supplying will be informed again separately about these products. However, do not hesitate to let us have your inquiry, as we are more than happy either to quote you or to advise you, where you can get a quote for these new products.

Our slabs are marketed under the names

ULTRA-FLOW
Density: 850 kg/m³
- 53 Lbs/cu.ft.

and

SUPER-CON
Density: 1300 kg/m³
- 81 Lbs/cu.ft.

These names are like the Insulite name, which we use for our light calcium silicate slabs, used exclusively by our company for the worldwide sales.

MSB-450 Double Size

Our Mosconi bricks, which we started marketing in double size about 1½ year ago, have been extremely well received by many clients. Those who use these bricks on a day-to-day basis are more than pleased with them, because due to the size of the bricks the number of joints are reduced, and the bricks are installed in the pots in half the time. Instead of laying, say, 5000 standard bricks, you only need to order half the quantity of double size bricks, and the price is only about the double of that of a standard size brick. These bricks can be supplied in the dimensions

230 x 230 x 64 mm
230 x 230 x 76 mm
220 x 220 x 60 mm
240 x 240 x 60 mm
250 x 250 x 64 mm

and whatever size you might require should, however, in each case be agreed with us.

Ceramic Fibers

This has not been a too attractive market for us to enter into, as the competition seems to be quite fierce. However, via our many contacts within the aluminium industry on a worldwide basis we get inquiries, and when we quote, we have quite often been successful in getting orders. Thus we generally supply these ceramic fibers, and we would normally buy them from the USA and South East Asia, in which countries some very fine ceramic fibers based on the best technology available today are produced. Any inquiries you might have for fibers are welcome and we shall come up with competitive prices for you.

TRAVELLING

Since my last letter we have been able to determine that Klaus, Morten and I last year, i.e. in 1989, were travelling 420 days totally. This means that every day of the year a Simonsen is on his way somewhere in the world to serve the clients best possible.

CONFERENCE

I was invited to a brilliant conference by Thermal Ceramics in Augusta, Georgia, in April 1990 which took place in Charleston, South Carolina.

This arrangement was very professional and at the same time very nice, and a lot of nice people participated. The place of the conference, Charleston, South Carolina, was also just in my and Tove's taste. This is a beautiful place to stay, and the people down South in the States have a wonderful sence of humour and a nice way of living which we like.

During the conference I participated in a deep sea fishing competition, and together with a good friend of mine, Mr. Michel Lalonde from Montréal, we got a third price in our boat, and we both cashed a 25 Dollars price.
Not bad for a deep sea fishing beginner. We got a shark hooked. It was about - jeah, well he was quite long, what you would realize if you could see the distance between my two hands right now, but unfortunately he jumped off the hook just before we landed him. You may think that it is a fisherman's joke, but it is not. It is true, though I know you will not believe me.

PROJECTS/REGULAR CLIENTS

At the beginning of 1990 we decided in our company that with all the new projects coming up various places in the world we could only supply our "day-to-day" clients with our various products. We simply fear to land so large order that we cannot supply our regular clients with our products. Therefore we have more or less backed out of all the large projects, for which we have got inquiries, as we simply cannot guarantee our daily clients supplies in time, if we get too heavily involved in such projects. This has been very well appreciated by the clients who received the letter, and fortunately, we have generally been getting through 1990 without any serious delays, even though they have occurred, and that happens in any production. But generally we have been able to give the clients our good service, and we will continue to do so also in 1991. The orders we receive are growing in numbers, and we appreciate that, but we will never take more orders in than we feel sure our suppliers can deliver in time.

REFRACTORIES

The general situation concerning refractories worldwide for the aluminum industry has been tight in 1990. I personally still foresee some problems during 1991 and 1992. Someone might claim something else, even though they might agree with me, but only to show in public that they disagree, but I believe I am right. We have clients placing orders two, three years ahead in order to make sure they get their supplies, and these smelters are very wise. Like in the old days you cannot place an annual order in October/November or even as late as in December and expect deliveries to take place in January the next year. That is simply not possible.

You can also help the producers by placing the orders well in advance in order to make sure that you get your products in time, that the producers get time to produce each order to make sure that the producers are not working under too much pressure, so that they get time to make the optimal product for you. I think that the same goes for your own production, doesn't it? Therefore, I would strongly recommend that during 1991, and maybe also 1992, you make up your mind what products you are going to use, being it our products or someone else's - order in due time to make sure that you get your deliveries in time.

In this connection we should add that we still market ourselves as the alternative suppliers, even though we have fortunately seen that our competitors are now becoming the alternative suppliers, because many of our products are so much appreciated for many reasons.

Most of our suppliers have full order books until mid 1991. We have secured large orders for moler bricks to be supplied by AKW in Uelzen and for vermiculite slabs to be supplied by Kramer GmbH in Düsseldorf. The Kramer standard production is now up to a high quality level, and of course we can take more orders in, but we have approximately 60 to 70% of the production capacity occupied with orders which we have already secured for 1991.

INSULITE 1900

Concerning Insulite 1900 we have also pretty full order books, but as you know we never take more orders in than that we can take more orders and we can supply certain urgent orders within very short notice. The problems we have had within the last 3 to 4 months with the production by Siborit in Lüneburg have been overcome. We have unfortunately had some serious delays on certain orders, which we deeply regret, but everyone knows that, when you practically start up a new factory, there will always be things to amend and correct before the production is running perfectly. All these problems have been solved with the usual German efficiency, and now the slabs are up to a quality, which is unbelievable, and the delivery times are also getting shorter. Due to the extended production capacity, Siborit has today the largest production capacity in the world, and we will not have any problems in supplying some orders with relatively short notice in 1991.

CIM

Our company has become a member of the CIM, Canadian Institute of Mining and Metallurgy, in Canada, as supplying very large quantities of our products to the Canadian aluminum industry we feel that we should support the local organizations just as we are members of the TMS organization in the U.S.

EXTRA SERVICE

We have booked pretty many orders from the USA over the last month. Many of these orders are shipped by Maersk Lines of Denmark, a very large and efficient shipping line. Maersk Lines has installed a very special programme in our computer system enabling us to follow every container on its way from our suppliers to the client.

We know when the containers reach port of arrival, when it has been customs cleared, where it is on its way to, and exactly when it arrives at the clients. We take advantage of this system, and this means that we can always inform the clients, who's deliveries are shipped by Maersk, of it when the containers arrive. Such a service can hopefully be provided to all our clients worldwide within the next year or two.

NEW EQUIPMENT AT MOSCONI

Mosconi in Italy have finally completed installing a new five face grinding machine. This grinding machine has now been running for some months, and the results are extremely good. The tolerances of the bricks machined are practically nil, meaning that not only do you get the best insulating bricks on the market worldwide, but you also get the most accurate, non-dusting, and pricewise cheapest brick.

We feel confident that this particular brick will be a more and more important item year by year, and it will definitely, together with the Japanese JAI brick supplied by ISOLITE in Osaka, be the brick, which will be used, because the quality is absolutely outstanding, the tolerances too, and no one can beat us on these two issues, which are very important. Both types of bricks are packed very well, they arrive without any damage, mainly due to their tolerances they can be stacked very close on the pallets, and with a good packing and container or lorry transport, no damage occur in transit.

Our moler bricks from AKW, Germany, are trimmed 6 faces.

TESTS

An important thing in our opinion is, how does a calcium silicate slab insulate under compression. We mean, when the blocks have been installed in the bottom of the pots and the blocks over the year get more and more compressed, how will their insulating value be. SIBORIT in Germany have made such a test, during which our Insulite 1900 slabs have been compressed by respectively 20, 30, and 40%. The compression appears from the enclosed data sheet. As you will see the thermal conductivity is practically unchanged. In fact the insulating value is microscopicly better than that of the slabs not compressed. We thought that this might be an interesting and relevant information to get, and we ask you please to study the enclosed test data.

We have also made test of the thermal conductivity of the microporous calcium silicate slabs Insulite 1900 depending on the density at various temperatures. We enclose a data sheet with this information too, as we also think that this could be valuable for you to know.

ALUMINUM

Finally, I have got various points to make, not absolutely serious, but anyway, the Danes launched a new train as the successor of all the existing trains in Denmark, and this is completely Danish design, and it is called IC3. The designers claim that it is consisting of 50% high technology and 50% aluminium. Isn't it nice to see that even the Danes take so much advantage of a beautiful raw material as aluminum?

VARIOUS

Smoking

The other day I saw an article in a paper, speaking for itself, and which I think that all of us should remember, whether you are smoker or non-smoker, namely:

> CONSIDERATE SMOKING IS IMPORTANT
>
> Smoking needn't mean friction, even in confined spaces. Non-smokers will appreciate simple acts of courtesy, like being asked if they mind you lighting up a cigarette. Managers can help by ensuring that office ventilation works properly. And there is an important contribution every one can make: being tolerant of individual likes and dislikes. In short, both smokers and non-smokers should try to see things from one another's point of view.
>
> Smoking doesn't have to be a burning issue in the workplace. Consideration on one side, and a little tolerance on the other, may be all that's needed to take the heat out of the argument.
>
> As you may know, I am an enthusiastic pipe smoker!

The Lowest Tenderer

One of our friends abroad once gave me a note. Please see the enclosure:

THE LOWEST TENDERER

which is made by a John Ruskin who lived from 1819 to 1900. I think that this might be interesting for your to read, and how this good, old John Ruskin was right - do you agree?

Finally, Klaus visited in America, and when he was visiting one of our very good clients he found in their copying room, i.e. close to their photo copying machine, a very funny note under the headline "Actung". I think that this is beautiful, and I think that you should read it, too.

I also hope that you find these few things as funny as we did.

I think that this is all about what has happened in our company in the past year, what we are going to do in the future, and finally I would end this news-letter, telling you that to the playing cards which we distributed last year at Christmas, we had 3 funny responses:

1. One agent had his playing cards torn to pieces while he was present by the customs, as he was not supposed to play card in that particular country!!

2. One of our friends received a play containing of only 45 cards.

3. One never plays card.

I hope that we have brought you up to date and conveyed some of our activities. We will see if we can keep you more informed around early/mid next year about further developments in our company, and until then may we wish you all a beautiful Christmas and all the best for 1991, during which we hope that there will be no war, that the countries worldwide can work even closer together, so that this progress started in Eastern Europe may develop, and so that we can end up acting like one big family, because in fact there are not that big differences between us. We may eat different things, live in different climates, have different religions, but I think that when the day is over we all have the same wishes and desires.

Many kind regards from

Jørgen Simonsen

Low water vibration mixes require proper mixing and vibrating to assure successful installation.

MIXING

Low water vibration mixes require paddle mixers or high-intensity mixers. They can not be properly mixed either by hand or in a drum type concrete mixer.

Low water vibration mixes must be mixed for a minimum of five minutes after the water is added to the mix.

During mixing, the mix will appear to be very dry for the first two to three minutes. However, it will get progressively wetter during the five minute mixing interval.

If metal fibers are to be used, they should be distributed into the mixer during the five minute mixing interval.

Refer to the data sheet for the proper amount of mixing water. Use the minimum amount of water which will allow the mix to be compacted by the vibrator.

VIBRATION

Vibration is required to compact low water vibration mixes.

External vibrators are more efficient than immersion vibrators and will result in superior properties in the installed material.

When the proper amount of mixing water is used, low water vibration mixes will not readily segregate due to over vibration.

CONTACT YOUR NATIONAL REFRACTORIES REPRESENTATIVE FOR HELP IN PLANNING THE INSTALLATION PROCEDURE.

NATIONAL
REFRACTORIES & MINERALS

TECHNICAL DATA

KRICON 28-XR
LOW CEMENT CASTABLE

Recommended Service Temperature Limit.....2800°F
Water Required For Mixing
External Vibration.....4 - 5%
Internal Vibration.....5 - 6%
Material Required per ft^3.....145 lb
Packaging.....100 lb bag

TEMPERATURE (°F)	BULK DENSITY (lb/ft^3)	LINEAR CHANGE (%)	MODULUS OF RUPTURE (lb/in^2)	COLD CRUSHING STRENGTH (lb/in^2)	APPARENT POROSITY (%)
220	141-147	0.0 to -0.4	1100-1800	5000- 9900	----
600	141-145	0.0 to -0.5	1600-2000	4800- 9700	7-12
1500	141-145	0.0 to -0.5	1700-2100	4800-10800	7-13
2000	138-143	0.0 to -0.7	1300-2300	4800- 9800	7-14
2550	135-140	+0.3 to +0.7	1300-2500	6000- 7600	8-15
2732	132-139	+0.4 to +1.9	1100-2400	5100-10500	7-13

CHEMICAL ANALYSIS:

Al_2O_3.....45.5%
SiO_2.....47.8
Fe_2O_3..... 1.3
TiO_2..... 1.8
CaO..... 1.5
MgO..... 0.3
Alkalies..... 1.8

THERMAL CONDUCTIVITY:
NRMC Hotwire Method
Initial ascending temperature curve

Mean Temperature (°F)	K-Factor (BTU·in/h·ft^2·°F)
1000°F	11.6
1500°F	12.6
2000°F	14.0

HOT MODULUS OF RUPTURE: (lb/in^2)

At 1500°F.....1300-2600
At 2000°F.....1300-3100

These data represent average properties obtained on cast-vibrated specimens from commercial production lots by ASTM Standards tests, except where noted; other forming methods and/or test procedures may yield different data.

This data sheet was published January 1, 1988. Check with your National Refractories sales office to make sure you have current data sheet.

On the application of Fa. Siborit, Lüneburg, the thermal conductivity at 600°C after compression of three specimens had to be determined.

The submitted specimens were marked as follows:

specimen no.	mark	prescribed compression
1	Insulite 1900	20 %
2	Insulite 1900	30 %
3	Insulite 1900	40 %

The dimensions of the submitted specimens were 188 x 188 x 66 mm.
The specimens were compressed to the prescribed measure by means of a compression testing machine. Afterwards, they were cut dry to the dimension 150 mm x 150 mm x height.
The thermal conductivity was measured with the hot-wire method with parallel array and with a heating energy of 50 W/m.

Test results

specimen no.	height (mm) as submitted	height (mm) after compression	compression (%)	thermal conductivity at 600°C (W/m·K)
1	66,0	53,4	19,1	0,114
2	66,1	45,9	30,6	0,111
3	65,9	39,5	40,1	0,109

Clausthal-Zellerfeld, the 16th June 1989 - Dö/Rok -

Managing Director

i.V. (RD Dr.-Ing. D. Lenzner)

PRÜFANSTALT FÜR STEINE UND ERDEN · AMTLICHE MATERIALPRÜFANSTALT · INSTITUT FÜR NICHTMETALLISCHE WERKSTOFFE · CLAUSTHAL

Deputy

i.A. (Dr.-Ing. S. Abdul-Maula)

On the application of Fa. Siborit, Lüneburg, the gas permeability of a specimen labelled "Insulite 1900" had to be determined.

A specimen in form of a plate with the dimensions 300 mm x 300 mm x 50 mm was submitted, which showed traces of the compaction at the surface. Three drill cores with a diameter of 50 mm were taken out perpendicular to the compaction direction and were dried to constant weight at 110°C.

The determination of the gas permeability was carried out according to DIN 51 058 at 20°C.

Test Results

specimen	gas permeability D_{SL} (nPm)
"Insulite 1900"	$27{,}6 \times 10^{-2}$ $27{,}1 \times 10^{-2}$ $27{,}6 \times 10^{-2}$
mean	$27{,}4 \times 10^{-2}$

Clausthal-Zellerfeld, the 22nd May 1989 - Dö/Rok

Managing Director

i.V. (RD Dr.-Ing. D. Lenzner)

Deputy

i.A. (Dr.-Ing. S. Abdul-Maula)

Amtliche Materialprüfanstalt für Steine und Erden

3392 Clausthal-Zellerfeld, Zehntnerstraße 2 A
Direktor: Prof. Dr.-Ing. I. Odler

Test Report

PRÜFUNGSZEUGNIS

Nr. M 9432/E

Applicant:
Antragsteller: Siborit GmbH & Co.
Postfach 2167

2120 Lüneburg

Antrag vom: 17.03.89 Zeichen: wa-ir

Application:
Inhalt des Antrags: Test of the gas permeability of the specimen "Insulite 1900".

The Test Report consists of 2 pages.
Das Prüfungszeugnis umfaßt Blatt

Amtliche Materialprüfanstalt für Steine und Erden

3392 Clausthal-Zellerfeld, Zehntnerstraße 2 A
Direktor: Prof. Dr.-Ing. I. Odler

Test Report

PRÜFUNGSZEUGNIS

Nr. **M** 9520

Applicant: Siborit GmbH & Co.
Antragsteller: Postfach 2167

2120 Lüneburg

Antrag vom: 22.03.89 Zeichen: wa-ir

Application: Test of the thermal conductivity at 600°C
Inhalt des Antrags: of the speciem "Insulite 1900" after compression.

The test report consists of 2 pages.
Das Prüfungszeugnis umfaßt Blatt

ACHTUNG!!

Das machine is nicht fur gerfingerpoken und mit-tingraben.

Is too easy schnappen der springenwerk und blowen-fusen und poppencorken mit spitzensparken.

Ist nicht fur gewerken by das dumkopfen das rubber-necken sightseeren.

Keepen der hands in der pockets.

Relaxen und watch all der blinkenlights.

"The Lowest Tenderer"

"It's unwise to pay too much, but it's worse to pay too little. When you pay too much, you lose a little money — that's all. When you pay too little you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought for. The common law of business prohibits paying a little and getting a lot — it can't be done. If you deal with the lowest tenderer it is well to add something for the risk you run, and if you do that, you will have enough to pay for something better."

John Ruskin (1819 - 1900)