IMA News

Below are articles and summaries of magnesium related stories. IMA Member companies are asked to distribute the IMA News to their employees. IMA member company employees wishing to receive the monthly IMA News issues should send their email addresses to the IMA World Headquarters. We appreciate all member company press releases and announcements for inclusion in the monthly IMA News issues. Please send your news to info@intlmag.org.

February 2015, Issue #2

Registration is now open for the IMA 72nd Annual World Magnesium Conference!

Exhibit and Sponsorship Opportunities Available at 2015 World Magnesium Conference

GALM Global Lightweight Materials Manufacturing Summit, GLMM

GALM 4th Annual Global Automotive Lightweight Materials Summit - Europe 2015

Janaury Magnesium Review from Metal-Pages

November Japan Magnesium Newsletter

Janaury China Magnesium Industry and Market Bulletin

Member News

Industry News

Upcoming Events

Registration is now open for the IMA 72nd Annual World Magnesium Conference!

IMA's 72nd Annual World Magnesium Conference, in Vancouver, Canada May 17-19, 2015 will feature a variety of educational and networking opportunities. A true global event, this unique event offers presentations of papers featuring the latest industry technical innovations and business market developments, recognition of industry leaders, networking opportunities and social activities. Check out the Schedule-At-A-Glance or the Technical Sessions page.

You can now register online. Register by the early bird deadline to take advantage of discounted rates. Click here to register now.

Hotel registration is also open online. Special rates are available for conference delegates at The Fairmont Hotel in Vancouver, but rooms are limited so be sure to reserve yours today by clicking here, or visit Travel & Lodging for all hotel and travel information.

As The Global Voice and Resource for Magnesium, the International Magnesium Association strives to ensure that the 72nd Annual World Magnesium Conference will provide the very best in educational programming, networking opportunities, and more. Check out the event page at www.IMAworldconference.org for program details.

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Exhibit and Sponsorship Opportunities Available at 2015 World Magnesium Conference

Sponsor Make plans now to exhibit at and/or sponsor the International Magnesium Association's 72nd Annual World Magnesium Conference. Reach a focused and qualified audience of magnesium industry professionals who are looking for equipment, services and answers to questions.

IMA's Exhibition will be open Monday, May 18 and Tuesday, May 19 for almost 20 hours of quality face-to-face time with current and potential customers.

IMA delegates come prepared to ask questions, discuss problems, issues, and needs with exhibitors, so booth personnel must be technically adept to take full advantage of this channel of communication with customers.

The IMA Expo gives you an opportunity to:

- Showcase your best and brightest technological innovations, products, and services
- Demonstrate your company's commitment to the industry
- Increase your visibility and your global presence
- Reveal your products and services to an interested audience
- Generate awareness for your company's capabilities
- Offer solutions to technical questions.

For additional information visit the Exhibitor Information Page or check out the Sponsorship Opportunities

This year Exhibitor/Sponsor Registration is available online. Exhibit space is limited... so don't delay! Reserve your spot now.

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Global Lightweight Materials Manufacturing Summit, GLMM, April 14-15, 2015 in Detroit, MI

Registration is open for GALM's Global Lightweight Materials Manufacturing Summit in Detroit, April 14th & 15th, 2015. Part of the industry renowned GALM series of events, this event focuses on reducing the cost of multi-material lightweight joining & forming, and was created specifically for the manufacturing job functions. Reducing vehicle weight has been chosen as a top strategy for meeting the fuel efficiency targets among the automakers - 88% of the OEMs have acknowledged that they have or plan to develop strategies for using new materials in a car body. In spite of its popularity, this weight reduction strategy has been recognized by the industry as one of the most difficult.

Held in the heart of the Auto Industy, the most practical, OEM led and case study driven lightweight materials manufacturing congress is back to assist OEMs with meeting the fuel efficiency targets in the most cost effective volume driven manner.

As an IMA Member, you can claim a 15% discount on registration using the following discount code at checkout: **GLMMIMA**. Click here, for additional details or to register now.

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GALM 4th Annual Global Automotive Lightweight Materials Summit - Europe 2015

Join Global Automotive Lightweight Materials, GALM, as they return to the UK for the 4th Annual Lightweight Vehicle Congress in London, April 29th & 30th, 2015. Meet senior decision makers from OEMs across the globe, hear the very latest weight reduction success stories from OEMs, Tier 1's And Material Suppliers, participate in exclusive networking opportunities, and so much more! Body in white exhibition, next-steps focus, and global perspectives are just some of what makes GALM Europe unique.

Preliminary speakers include Dr Carsten Finkeldey, Head of Body Planning C-Class, Daimler and Bruno Barthelemy, Chief Engineer For Body Structures, Closures And Body, Ford Motor Company. Case Studies will be provided on key topics such as multi-material design, sustainability, forming, and more.

Unable To Attend The Event In Person? This years' conference can be streamed live. The Live Streaming Package Includes: Live streaming of the conference, live Q&A participation and the copy of the post event media package. Plus additional post-conference benefits.

As an IMA Member, you can claim a 15% discount on registration using the following discount code at checkout: GALMIMA. Click here, for additional details or to

register now.

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January Magnesium Review from Metal-Pages

US magnesium metal has come under renewed downside pressure amid an increase in Russian material and sluggish demand. The magnesium market has recently seen a pickup in offers for Russian-origin magnesium in the wake of a weaker ruble that is making exporting magnesium more competitive.

This news builds on reports that increased competition from China in the Russian domestic market had prompted an increase in offers from holders into the export market. These last minute offers for Russian-origin magnesium towards the end of last year helped throw some of the final US magnesium negotiations for 2015 into a tailspin.

US trade statistics show imports of 408.65t of unwrought pure magnesium from Russia in November 2014. While not a significant volume overall, this is an increase from 106.33t in October and higher than the two preceding months combined, and was the highest monthly import volume in 2014, before imports fell back to about 156t in December. But the trade source added that the material being offered was only small spot tonnages and not yearly or quarterly-based contract amounts.

Russian magnesium producers, however, said their exports, which have seen a limited increase since the US annulled anti-dumping duties on Russian magnesium, could not have a significant impact in the US magnesium market. A suggestion that Russian imports could be a source of cheap material in the US, does not reflect reality and is not backed up by data, said one source.

According to US trade data, US imports of pure unwrought magnesium from Russia totaled 2,305.84t in 2014. This is a 92.8pc increase from about 1,196.1t imported in 2013, but is still only a fraction of 16,228t of total US magnesium imports last year, of which 11,715t or 72pc originated from Israel, home to magnesium producer Dead Sea Works. The US Geological Survey put primary magnesium consumption in the US at 80,000 t/yr in 2014 and has estimated apparent consumption at 120t/yr.

Based on US trade statistics, average landed duty-paid value of Russian magnesium imports in 2014 increased by 5pc to \$3.64/kg (\$1.65lb) from \$3.47/kg (\$1.57/lb) in 2013. In December 2014, the average landed duty-paid value was \$1.70/lb, which is above the 2014 annual average.

Demand remains flat with only the occasional inquiry for spot tonnage. This reflects a market where magnesium consumers are largely covered under long-term contracts and end-markets remain stable.

The US aluminum alloying sector is being underpinned by the automotive industry, while volumes into the extrusions and can sheet industries are expected to pick up in the second quarter. "The spring tends to be a busier period for the construction industry, which supports the extrusions sector. Can sheet volumes also start to pick up ahead of the summer," said a trade source.

Magnesium is primarily used as an alloy with aluminum, accounting for some 45pc of total world consumption. Another 35pc is consumed in magnesium alloys in structural metals, about 13pc in steel making, with the rest used in electro-chemical and other sectors.

Consumption of reported primary magnesium metal in the US jumped 15.9pc in 2014 to 80,000t from 69,000t the year prior, according to latest figures from the United States Geological Survey (USGS). Total imports of magnesium metal for consumption rose to 55,000t last year compared with 46,000t in 2013, while exports also increased to 18,000t from 16,000t.

Net import reliance of apparent consumption was 30pc, up from 27pc in 2013, while the price for US spot metal averaged \$2.15/lb in 2014 compared with \$2.13lb the year before.

"The use of magnesium in automobile parts was expected to continue to increase as automobile manufactures seek to decrease vehicle weight to comply with fuel efficiency standards," USGS reported.

"In September, an expansion project started at a plant in Mexico, MO, which manufactures die-cast magnesium parts for the automotive industry. The capacity of the plant and the expansion project were not released, but employment at the plant was expected to increase by about 30pc when completed in September 2015."

It added that consumption of magnesium in the production of titanium metal by the Kroll process was expected to increase as the use of titanium increases in aerospace applications.

USGS also reported that global primary production of magnesium metal increased to 907,000t in 2014, up from 878,000t in 2013. China led the way with 800,000t produced last year, up from 770,000t the year prior, while Israel was the second largest producer at 30,000t compared with 28,000t in 2013. Russian production edged down to 28,000t from 32,000t in 2013, while output in Kazakhstan dipped to 21,000t from 23,000t.

"In China, expansion of capacity to produce magnesium metal continued in areas adjacent to sources of dolomite or lake brines and coking operations. Although much of the newer capacity is in locations with lower costs, such as Shaanxi Province, older capacity was still producing at reduced rates and could increase output if prices supported it," USGS said.

"A company in Norway was building a 15,000t/yr plant to produce magnesium from olivine. The plant was expected to be completed at mid-year 2015. It would also include secondary magnesium capacity."

The Chinese magnesium metal market has softened slightly, ending three weeks of stability as producers are trying to boost cash flow before the Chinese New Year holiday. Producers are facing financial tightness as they have to pay wages and interest to banks before the holiday. Supply on the spot market remains at a low level as producers are running at reduced capacity.

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The Japan Magnesium Association

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News in Japan

Fujifilm has unveiled the battery exchangeable diagnostic digital radiography X-ray equipment
Pioneer developed the world's lightest (245g) portable Blu-ray Disc drive for Mac users
Kasatani got an award for the forming of magnesium-lithium alloys
MACRW Co., Ltd. developed super lightweight child chairs made of magnesium and has commercialized them for child chairs.

Domestic Magnesium Market - November, 2014

News in Japan

Fujifilm has unveiled the battery exchangeable diagnostic digital radiography X-ray equipment (Source: My Navi News 27th Nov., 2014)

On 25th November, Fujifilm unveiled the cassette-sized battery exchangeable diagnostic digital radiography X-ray equipment, "FUJIFILM DR CALNEO Smart" series. In this series, a new noise-reduction circuit is mounted on board, and a new image analysis software "Virtual Grid", which clears noises of scattered X-ray from radiographies, is packaged, too. These attachments enable taking radiography by low dose of X-ray because they can increase the contrast and the graininess of the

images without using a metal filter.

A magnesium alloy, which is the lightest and superior in relative stiffness among the metals, is applied to the new frame of the flat panel sensor back cover of which inner surface is reinforced by ribs. Weighing 2.6kg for 14x17 inch size, and 3.2kg for 17x17 inch size, the product realizes the world's lightest as the cassette-sized battery exchangeable diagnostic digital radiography X-ray equipment.

In addition, a shell structure, widely used as a technique for light and strong architectures, is adopted to the basic frame of this back cover, and gives high toughness having withstand load 310kg. The product will be on sale through Fujifilm Medical Systems from 1st December.

Pioneer developed the world's lightest (245g) portable Blu-ray Disc drive for Mac users

(Source: My Navi News 28th Nov., 2014)

On 28th November, Pioneer announced portable Blu-ray Disc drive "BDR-XU03JM" for Mac, and it bills the world's smallest and lightest BD drive. It will have an open price tag, and the estimated shop price is around 26,000 yen tax-included. It will be on sale in the middle of December. The magnesium alloy having vibration damping property during running, it has been adopted for the housing.

Kasatani got an award for the forming of magnesium-lithium alloys

(Source: Sokeizai Tsushin 1st Dec., 2014)

Sokeizai Center (the Materials Process Technology Center) gave awards of industrial technical prizes to recipients of awards at the 30th Sokeizai's monthly ceremony held on 7th November.

Mr. Masahiro Kasatani and 5 others, who succeeded in "the development of the stamping technology for the magnesium lithium alloy", won the Sokeizai Center Chairman's Award.

Kasatani's stamping technology is an epoch-making technique that contributed to the birth of the world's lightest NEC's note PC (adopted for bottom cover) at the time when the weight saving was advancing.

MACRW Co., Ltd. developed super lightweight chairs made of magnesium has commercialized them for child chairs.

(Japan Metal Daily 2nd Dec., 2014)

MACRW (Fujinomiya City, Shizuoka Prefecture), a producer of magnesium alloy bars and pipes, recently announced that they had developed the chair adopting magnesium pipes to the frames for the first time in the world. The company completed the chair built of pipes, boards and bars of magnesium by using of their own original processing technique related to bending and welding, etc. Super lightweight and highly advanced design are well balanced in the chair. The expected unit price is 20,000 yen, and the company aims at the sale in this year. The company will serializes the chair of magnesium by a name of Mt (mount). This name contains their thought that they will start manufacturing by innovative materials from the factory in the foot of Mount Fuji. As for the alloy, AZ61 is used for the chair. The weight of the child chair planned to be marketed within this year is 1 kg, and the company has a plan to sell them to individuals or furniture shops.

Domestic Magnesium Market - October, 2014

(Source: October issue of Import/Export Statistics (customs clearance basis) of METI - Compiled by The Japan Magnesium Association)

Import

Based on Import/Export Statistics of October 2014, the magnesium metal import was 3,158.4 tons (44.3% increase from the same month the year before), magnesium powder 270.2 tons (30.7% decrease) and other products 226.2 tons (61.2% increase).

Whereas pure magnesium continuously showed the large increase, powder category declined from the year before, and other product sector maintained brisk import from China, total amount of import in October became 3,654.8 ton (34.4% increase).

The breakdown of the metal category was that the pure magnesium was 2,441.7 tons (43.0% increase), die-casting use was 712.5 tons (50.7% increase), casting alloy was 4.1 tons (55.0% decrease). The pure magnesium showed large increase in the background of price slump of China following the last month. The die-casting alloys, which had been decreasing, showed the large increase, and casting alloys decreased by half.

In October, the average import price of pure magnesium stayed at 271.0 yen/kg (2.4 yen/ kg or 1.8% increase from the month before) due to weakening Japanese Yen.

Despite the decline of the average import price of magnesium alloys by 2.1 yen/kg from the previous month, it was 311.2 yen/kg, and it has been keeping 300yen/kg level.

The total imports of January-October 2014 consisted of 26,681.2 tons of magnesium metal (16.5% increase vs the same period the year before), 3,472.2 tons of magnesium powder (7.5% decrease), and 1,924.1 tons of other products (565.5% increase). The total was 32,077.5 tons (19.1% increase) and has remained stable in each category.

Export

In October 2014, 40.7 tons of magnesium alloys (100.8% increase vs the same period the year before) and 62.5 ton of other products (3,520.8% increase) were exported. In these, export to China significantly increased to 61.8 tons.

The total exports of January-October 2014 consisted of 433.5 tons of pure magnesium and magnesium metal/alloys (41.0% increase vs the same period the year before), 8.1 tons of magnesium powder (163.8% increase), and 81.2 tons of magnesium products (141.4% decrease).

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January China Magnesium Industry and Market Bulletin

China Magnesium Association (CMA) said the output of primary magnesium output in 2014 hit 873.9kt, up 12.71% y-on-y, but different with actual data (Contributed by Ms.Luoshejuan, Sunlight Metal)

Data by CMA indicated that output of primary magnesium in 2014 closed at 873.9kt, up 12.71%, of which Shaanxi contributed 404.6kt, up 17.83%; Shanxi 249.7kt, up 4.94%; Ningxia 93kt, down 13.9%; Xinjiang 44.5kt, up 94.63%; Henan 41.4kt, up 3.25%; Jilin 5.9kt, down 30.36%; Sichuan 5.3kt, up 66.08%; Inner Mongolia 4.5kt, up 25.93%; Qinghai 14.8kt, up 1043.16%; and Liaoning 10.2kt, up 54.86%.

As shown above, although magnesium prices hit 8-years low in 2014, magnesium plants still pushed aside all obstacles and difficulties to maintain production, especially in Shaanxi where went toward robust uptrend. However, Shanxi grew in relatively narrow way, and Ningxia indicated negative growth. Primary magnesium production further transfer to the western regions where boast resources advantage.

However, if given careful analysis, such statistical data differ from actual. First of all, from the data itself, output in Shaanxi was low, but statistics for Shanxi, Ningxia and Xinjiang were high, seemingly with some repeating statistics, while outputs for Henan, Jilin and Liaoning were mainly for other magnesium products, clearly with wrong classification. Secondly, given domestic market consumption and inventory, primary magnesium production, in 2014, won't have such a high growth rate. Domestic market lacked obvious drive and substantial growth, and demand for magnesium by some end-use fields even shrank down. So magnesium insiders should have a clear understanding for this situation, and avoid being misled by some public data.

Through investigation and comprehensive analysis, Sunlight Metal believes output of primary magnesium, in 2014, maybe closes at about 800kt, up 7-8% y-on-y, but specific and accurate output will be released following further survey and investigation.

Output of primary magnesium by regions in 2014

Region	Ouput	Growth y-on-y (%)
Shannxi	404.6	17.83
Shanxi	249.7	4.94
Ningxia	93	-13.9
Xinjiang	44.5	94.63
Henan	41.4	3.25
Jilin	5.9	-30.36
Sichuan	5.3	66.08
Inner Mangolia	4.5	25.93
Qinghai	14.8	1043.16
Liaoning	1.02	54.86
National Total	87.39	12.71

(Source: China Magnesium Association)

Export of magnesium products closed in December 2014 in China (Unit: t)

ltem	Magnesium	Other	Waste and	Magnesium	Magnesium	Magnesium	Monthly total
	unwrought	magnesium	scrap	raspings/turnings/granule	swrought	articles	
	(min.99.8%)	and alloy		according to size &			
		unwrought		powders			
HS code	81041100	81041900	81042000	81043000	81049010	81049020	
Jan.	21732	12595.3	242.4	9304.7	490.1	476.2	44840.7
Feb.	11844.3	5898.5	209.7	3911	209.8	393.9	22467.2
Mar.	24607.2	9323.1	447.8	8858.7	512	389.5	44138.3
Apr.	20023.5	8624	147.9	9074.5	319.8	643.2	38833
May	16793.5	9041.1	433.7	7373.1	190.3	963.2	34740.9
Jun	16949.8	10150.8	286.4	7278.9	234.2	619.5	35519.7
Jul	18445.9	9232	289.9	6862.9	196.9	507.8	35535.5
Aug.	17975.3	8024.9	113.8	6918.4	373.2	632.5	340378
Sept.	19593.69	8249.17	0	6720.33	329.1	592.53	35484.81
Oct.	16676.4	7655	327	6333.8	362.8	560.9	31916.8
Nov.	18134.2	7210.3	141.6	7389.8	250.2	411.6	33537.6
Dec.	24588.7	10427.4	307.2	7949.7	253.5	376.9	43933.6
Total	227310.6	106461.7	2948.4	87975.8	3721.8	6567.8	434986.1

(Source: China Customs)

Export for magnesium products in 2014 by region

No	Region	Export (t)	% of Total
1	Holland	110821.0	25.5%
2	Canada	60727.9	14.0%
3	Japan	37798.3	8.7%
4	South Korea	22177.0	5.1%
5	India	18093.6	4.2%
6	Taiwan	13503.1	3.1%
7	USA	13267.5	3.1%
8	Turkey	11328.9	2.6%
9	Britain	11015.5	2.5%
10	Germany	10644.8	2.4%
11	Slovenia	10264.3	2.4%
12	UAE	10032.0	2.3%
13	Romania	9974.2	2.3%
14	Mexico	9628.0	2.2%
15	Italy	7799.7	1.8%
16	South Africa	6708.1	1.5%
17	Russia	6410.2	1.5%
18	Greece	5432.5	1.2%
19	Australia	5136.9	1.2%
20	France	4937.1	1.1%
21	Bahrain	4688.3	1.1%
22	Norway	3977.6	0.9%
23	Saudi Arabia	3326.9	0.8%
24	Spain	3000.6	0.7%
25	Malaysia	2949.4	0.7%
26	Thailand	2875.2	0.7%
27	Sweden	2516.2	0.6%
28	Qatar	2456.3	0.6%
29	Argentina	2308.3	0.5%
30	Indonesia	2009.4	0.5%
31	Oher Regions	19177.1	4.4%
	Total	434986.1	100%

(Source: China Customs)

Production line for 1 mln. of steering wheel skeletons annually goes into full operation by Tianjin Liuhe Magnesium Product
Tianjin Liuhe Magnesium Product operates its steering wheel skeleton facility, from year 2014 on, into full capacity at 1 mln. of output annually. The product, following completion acceptance for environment protection, ranks advanced level in domestic market.

Liuhe Magnesium Product, a Sino-US joint venture, locates in Tianjin Development Zone, covering an area of 30000 square meters, and with 5kt/a of capacity for

magnesium alloy and other alloy castings. To further meet the growing business needs, the company, adhering to casting good magnesium products and sharing quality security, speeds up the construction of 1 mln. of magnesium (aluminum) alloy skeleton project.

Reportedly, the project, through 8000 square meters of newly-built standard workshop, and importing advanced production equipment for magnesium alloy die casting and quality control technology, realizes industry-scale production, and passes the SGS certification. Its products, including steering wheel skeleton, die castings for vehicle safety system, and pump valves, will, as top-level magnesium alloy parts, serve well-known automobile, motorcycle and bicycle manufacturers.

Linzhou Dingxin Magnesium Science & Technology puts production line for 3 mln. magnesium hubs annually into trial production
In January 12th, Linzhou Dingxin Magnesium Science & Technology, Anyang, Henan, announced that the company puts production line for 3 mln. magnesium hubs annually into trial production, and the first 40 magnesium hubs have been smoothly rolling off the assembly line.

Mr.Ma Zuopo, deputy general manager, said, "Upon the small batch test, the performance of the whole hub reaches the expected goal, and will immediately be sent to national-level testing center for testing. If the testing is qualified, we will be able to carry out mass production for sale."

Ma Zuopo said that magnesium alloy wheel is machined with one-time forging, and the production line, indicating high efficiency and stability, is streamlined against currently domestic and international process. Magnesium alloy wheels, with lighter weight and better shock absorption, are fitted into cars with more safety and comfort. The test shows magnesium hub weighs one kilogram less, and basically reaches 7%-plus fuel-saving rate(max. 14-15%), with energy saving and environmental protection.

It is reported that 3 mln. of magnesium alloy hubs project, with 1 bln. yuan of investment and 2.4 bln. yuan of output value, is carried out by 3 phases, of which the first phase project attracts 0.2 bln. yuan of investment with 1 mln. of magnesium hubs.

LED radiating technology comes off with breakthrough as magnesium alloy develops into new generation of heat dissipation material In Jan.8, scientific team from Harbin Institute of Technology kicked off castable magnesium alloy with high thermal conductivity and wrought magnesium alloy with high speed extrusion. The technology, being granted with a number of invention patents, can be used for LED tube lights, floodlights and street lamps, and has bright future in the prospect of LED lamp radiating material. Now, the scientific team carries out a small batch trial production for large-scale production.

Research data show that LED chip, if junction temperature is 25 centigrade degrees, can give off 100% light, but drops down to 90% if junction temperature rises to 60 degrees; 80% at 100 degrees, and 70% at 140 degrees. Magnesium alloy, against both aluminum alloy and copper alloy, is significantly better in terms of heat radiation rate, and has wide application prospect as LED lighting radiating material.

Guizhou Bureau of Quality and Technical Supervision initiates magnesium and magnesium alloy-determination of Li content by ICP-AES(ISO/NP20258) Magnesium and magnesium alloy-determination of Li content by ICP-AES(ISO/NP20258), initiated by Guizhou Bureau of Quality and Technical Supervision, is established by ISO.

In view of no testing standard on Li content in both magnesium and magnesium alloy in ISO/IEC magnesium and magnesium alloy systems, Guizhou Bureau of Quality and Technical Supervision, taking into account actual industry demand in Guizhou, vigorously guides colleges and universities, scientific research institutes and enterprises to use their technology advantage to actively participate in international standards activity. Magnesium and magnesium alloy-determination of Li content by ICP-AES(ISO/NP20258) is another standard establishment from ISO, following the standard on large diameter steel wire rope initiated by Guizhou Bureau of Quality and Technical Supervision.

International Standardization Organization (ISO), established in 1946, is a non-government institute for industry standard. China, represented by of the world's largest specialized institutions, is a very important field of international standardization organization. ISO international standards organization was founded in 1946, China, represented by General Administration of Quality Supervision, Inspection and Quarantine of PRC, is a member of ISO.

Semi-continuous casting projects for high-strength magnesium alloy casting by Hebi Wandefu Magnesium enters into record-filling procedures

Name of the project: semi continuous casting of high-strength magnesium alloy for aerospace industry with 1kt/a of capacity

Construction site: Jinshan Industry Park, Hebi Development Zone

Main construction items: 2000 square meters of new workshop, but not occupying new land.

Main process: magnesium alloy billet moldâ†' crystallizer designâ†'selection of raw materialsâ†' raw material mixture and re-meltingâ†' adding intermediate alloyâ†' inert gas stirringâ†' semi continuous castingâ†'surface treatmentâ†'product testingâ†'packaging and in storage.

Major equipment: magnesium alloy furnace, semi-continuous casting mill, alloy composition analyzer, high precision detector for magnesium alloy casting rod, homogenization treatment furnace for magnesium alloy ingot, and large sawing machine.

Construction time: May,2015 to May,2017

Total investment: 30 mln. yuan

Shanxi Meijin Energy Group terminated primary magnesium production

As magnesium price run under operational cost, Shanxi Meijin Energy Group, taking into account state and local governments highlight environmental protection and the current bottleneck in production process of primary magnesium, shut down its primary magnesium production line on Dec. 31, 2014. Then, the group will initiate a new chemical project, through which coke oven gas, a by-product form coke production, will goes through purification treatment as clean energy for community use. Year 2015 will see Meijin Energy Group open new voyage for clean energy.

Source from the group said it is impossible for the group to resume primary magnesium production within short time, "In 2014, magnesium market run sluggishly, and primary magnesium producers made serious loss. Currently, producers find it difficult to overcome the bottlenecks in production process which result in terrible air pollution. Also, Governments put stringent measures for environmental protection. In the long run, we, in 2014, invested 0.8-0.9 bln. yuan on a new chemical project, and, by changing production process, we turn oven gas into clean energy for community use. This effort brings about friendly environment. In the short time, we have no plan to resume primary magnesium production, unless magnesium market turns for better obviously. Magnesium, as a new material, has bright future in the long run, however, private producers, for the lack of preferential policies, are diffident toward primary magnesium production."

Shanxi Meijin Magnesium Alloy, a private- owned enterprise founded in 2006, is a wholly owned subsidiary of Meijin Energy Group. Located in Meijin Industry Park, Qingxu County known for vinegar production, Meijin Magnesium Alloy, one of the major projects constructed by Meijin Energy Group in the development of circular economy, mainly engages in magnesium ingot, magnesium alloy ingot and tar products, with 10kt/a of capacity for primary magnesium. In 2014, its output closed at 800-1000t.

Differential-pressure casting process for magnesium alloy and aviation-oriented casting by Shanxi Yinguang Magnesium come through appraisal Differential-pressure casting process for magnesium alloy and aviation-oriented casting, an independent innovation casting technology carried out by Shanxi Wenxi Yinguang Magnesium, come through appraisal by experts from Northeastern University, Shenyang Aircraft Research Institute, Shenyang Aircraft Corporation and representatives from navy and air forces. The experts concluded that the new process and product, an innovative achievement by proprietary process from Yinguang Magnesium, have great advantage over other manufactures'. They even perform well over the executive standard in Russia. Differential-pressure casting brings about tiny crystalline grain, high density, less defects, high mechanical property (up by 10-20%), high elongation rate (up by over 50%), and superior corrosion resistance against traditional casting.

This appraisal indicates that differential pressure casting process for magnesium alloy by Yinguang Magnesium Group is recognized by aerospace industry, which lays the foundation for the application of magnesium casting in other segments. At present, both Shanghai Jiaotong University and Yinguang Magnesium can successfully apply differential pressure casting for magnesium alloy in China.

Magnesium ingot price by Sunlight Metal (unit: yuan/t)

	Shaanxi	Taiyuna	Wenxi	Ningxia	FOB(Tianjin) USD/t
Jan.4,2015	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 5	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 6	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430

Jan 7	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 8	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 9	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 12	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 13	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 14	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 15	13250-13350	13450-13550	13550-13650	13450-13650	2400-2430
Jan 19	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 20	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 21	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 22	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 23	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 26	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 27	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 28	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 29	13200-13300	13400-13500	13500-13600	13400-13600	2400-2430
Jan 30	13200-13300	13400-13500	13500-13600	13400-13600	2380-2410
Feb 2, 2015	13200-13300	13400-13500	13500-13600	13400-13600	2380-2410
Feb 3	13200-13300	13400-13500	13500-13600	13400-13600	2380-2410
Feb 4	13200-13300	13400-13500	13500-13600	13400-13600	2380-2410

Sunlight Metal collects and publishes daily ingot quotation and FOB price from key magnesium production regions objectively, independently and systematically. Being taken into account the viewpoints from both supplier and consumers, Sunlight Metal price, rationally reflecting the change in market, is the most authoritative in domestic magnesium sector for 5 years running. For more detail and inquiry, pls. contact us at info@chinamagnesium.net

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Bioresorbable Electronic Implant Made From Silk Combats Bacterial Infections

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