

## GODREJ INTERIO SPEAK

Dear Reader,

We have felt inspired while getting this issue of Godrej Interio InterEdge to you.

This issue features buildings which define the architectural landscape in geographies they inhabit. Also, structures which engage, attract and impart meaning to the rhythm of life.

We feature in this issue Metropol Parasol from Spain which defines the rhythm of life around it; a glass building in Japan which defines the rhythm within and an underwater restaurant in Maldives which adds the rhythm of the sea to your dining experience.

As always, Walk Green Talk Green reflects our commitment to Green philosophy while the Wellness Tip has practical assists for the workplace.

With season's greetings and best wishes,

Warm regards,  
Team Godrej Interio



“ You can just drift unhappily towards this vision of heaven on earth, and ultimately that is what architecture is a vision of: Heaven on earth, at it's best. ”

- Ben Nicholson

- 2 ENJOY UNDER WATER SUPPER AT ITHAA
- 3 TALK GREEN WALK GREEN
- 4 ON THE BOOK SHELF / WELLNESS TIP

- 5 NEW INTRODUCTIONS
- 6 ICONIC METROPOL PARASOL
- 7 AMAZING SEE THROUGH WORKSHOP

## ENJOY UNDER WATER SUPPER AT ITHAA

You may have had your meals on a jet 20,000 ft in the air, but imagine having your supper right under the sea with large sea creatures hovering over your head...

Welcome to Ithaa-the undersea restaurant.

Secured five meters below sea level at the Hilton Maldives Resort and Spa, Ithaa is mostly an acrylic building that only seats 14. Offering a 270-degree panoramic view to its customers, Ithaa was designed and constructed by M. J. Murphy Ltd., a New Zealand based design consultancy.

### Construction

M. J. Murphy initially planned to build the structure on the beach of Rangali. Technical challenges, limited resources and quality control problems in building a structure of 175 tonnes in the Maldives were foreseen. Hence, a decision was made to build Ithaa in Singapore instead.

In May 2004, its construction began in Singapore. In October 2004, the construction work was completed, including installation of five-meter-wide acrylic arches, air conditioning and electrical ducts. On November 1, 2004, Ithaa was

lifted onto an ocean-going barge to be transported to the Maldives. It took 16 days to arrive.

On November 19, 2004, Ithaa was "sunk" with the help of 85 tonnes of sand ballast loaded into its belly. It was precisely maneuvered onto four steel piles which had been vibro-hammered four to five meters into the seabed. It was then secured to the steel piles with concrete.

To enter the restaurant, visitors climb down a spiral staircase in a thatched pavilion at the end of a jetty. They enter the building which has a curved roof like a tunnel from above.

Opened in 2005, Ithaa serves contemporary fusion of Maldivian cuisine with Western and Asian influences.

The tsunami which followed 2004 Indian Ocean Earthquake, topped out at 0.31m below the staircase entrance, but caused no damage to Ithaa.

The life span of the restaurant is estimated to be 20 years.





# TALK GREEN WALK GREEN

## GREEN ADHESIVES

With the green building revolution spreading across the world, for any manufacturer to ensure a 0% carbon footprint, one must pay attention to the smallest of details. Adhesives and glues is one such project that Godrej Interio (GI) had taken up. Even though glue constitutes a very small part of furniture, it has a high impact on the VOC (Volatile Organic Compound) content.

Glue is mainly used for four purposes in GI:

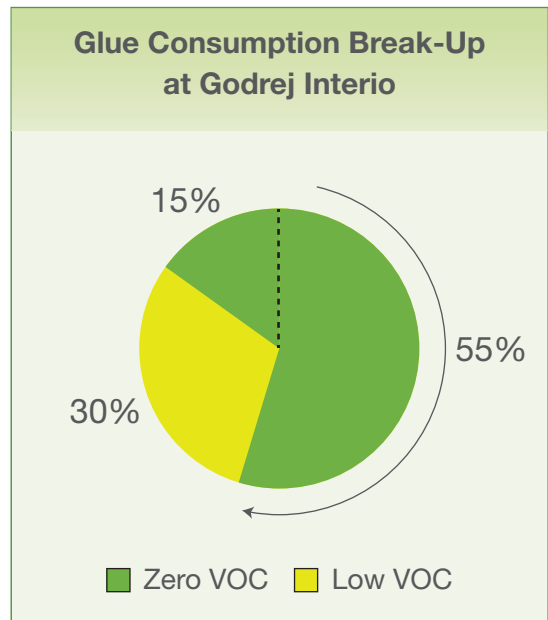
1. Chair upholstery
2. Tile upholstery (System Furniture)
3. Hot press (Boards)
4. Lipping (Boards)

Before the project was undertaken by us, an analysis was done on the type and quantity of glue used for each of the above processes. 15% zero VOC glues were used in the lipping process and 30% low VOC glues were used for hot pressing. Chair and Tile upholstery used high VOC glues. And, because of the sheer volumes in system furniture and chairs, the usage of high VOC glues was more than 50%. Hence, there was a need for an environment friendly adhesive for fabric upholstery.

The adhesive options are hot melt, water based and solvent based glues. Though Solvent based glues have excellent adhesion, they are very high on VOC. A low VOC option is water based glues but the adhesion quality is not as good as solvent based glues. Moreover, in both solvent based and water based glues, the curing time is very high and the adhesive consumption is higher as there may be a need to apply glue on both surfaces and wastage due to glue overspread. Solvent based glues also contain explosive chemicals.

Hot melt glue is not only zero VOC but also has excellent adhesion. There is no wastage due to glue overspread or double surface application and our consumption has been reduced by 65%. Moreover, its curing time is low and neither does it contain explosive chemicals.

Various boards of different manufacturers from around the world were chosen and were tested upon to arrive at the above results on environment friendliness of the glue and its performance during production and post-production.



In our quest to make the process of application of glue also greener, we are using Robatech Applicator. This machine reduces energy consumption by 16% and it is also ergonomic for the user, causing less fatigue.

The above project was a success and has been implemented in 3 manufacturing plants of GI. Adoption of this project has helped us make the glue process 100% GREEN.

## ON THE BOOK SHELF

**Olympic  
Architecture  
Beijing 2008  
by Guoxin Ma**



The Olympics has always been regarded as an opportunity for the host city to reinvent itself on the global stage.

The 2008 Beijing Olympics was no different with architects from China and abroad competing against one another in a contest of mega spectacles to get the opportunity to help recreate the image of Beijing.

The introduction of the book is written by Guoxin Ma, chief architect of the Beijing Institute of Architectural Design and also a participating architect. He provides insight into the cultural background and ideas which are symbolized by each of the architectural constructions for the Olympics. The book gives an interesting look at how both foreign and domestic architects have been able to take new technologies and building techniques, combine them with the traditions of Chinese culture, and translate these ideas into architectural forms.

The book makes for an interesting reading for both professionals and non-professionals and gives an insight into the synthesis of architecture and culture.

## WELLNESS TIP

### TAKE A BREAK... RELAX!

Working on the computer for long hours forces your body into strange positions causing stress and pain.

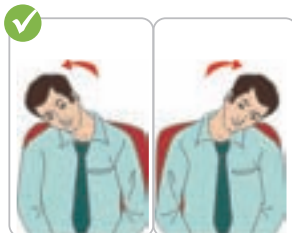
Every once in a while, give your muscles a break with these simple stretches.



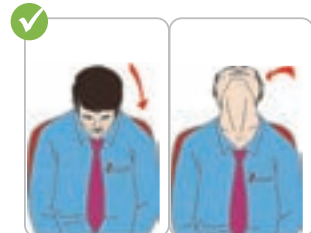
Stretch your fingers



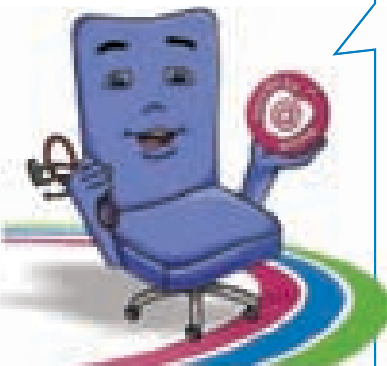
Roll your shoulders: backwards & forwards



Gently tilt your head to the left, return to normal position, then tilt it to the right



Drop your head slowly to the front, then back



If you have comfort or health queries related to your office environment, please feel free to contact us at: [dr.sitright@godrej.com](mailto:dr.sitright@godrej.com)

*\*Please refer last page*

## NEW INTRODUCTION

EUROPEAN DESIGN.  
INDIAN SENSIBILITIES.  
A CHAIR FOR TOMORROW.



With ACE, Godrej Interio brings you an office chair that has a blend of European styling and Indian anthropometric standards, to deliver a superior seating experience. Adding up ACTIVE BIO-SYNCHRO™ mechanism, BIO-FLEX™ lumbar support and new age materials, ACE strikes a perfect balance between aesthetics and ergonomics.

Truly an Ace above others...



# ICONIC METROPOL PARASOL

Seville, the World Heritage City and the central part of Andalusia in southern Spain, is best known for its historic landmarks that date back to the Middle Ages. However, the city also has some spectacular modern architecture in the Alamillo Bridge and the iconic Metropol Parasol, a wooden structure built between 2005 and 2011, in the heart of the city.

## The Site

The Metropol Parasol was built at the Plaza de la Encarnación, a large square in the center of Seville.



In the 1990s the city council, after coming across ancient Roman houses during excavations at the site, decided to create an archeological museum. It launched a competition for a redesign of the market square with the requirement that it should accommodate a museum as well as a market hall. Out of 65 participants, a modern design dubbed 'Metropol Parasol' by the Berlin architect, Jurgen Mayer H. was chosen.

Construction of the Parasol, a large wooden structure covering a large part of the square, started in 2005. It was originally slated for completion in 2007, but technical problems stalled the construction.

Eventually a breakthrough was made, and the design was modified. The Metropol Parasol finally opened officially on March 27, 2011.

## The Structure

The Metropol Parasol is a large canopy-like structure, 150 meters long and 70 meters wide, with a height of about 26 meters (492 x 230 x 85 ft). The structure rests on just a handful of large pillars, which act like trunks from where the tree-like 'parasols' rise. Those parasols provide plenty of shade, a necessity in a city known for its scorching summers.

The Metropol Parasol is made of concrete, steel and timber with a polyurethane coating, held together with glue. The glue was tested to withstand Seville's high summer temperatures.

Elevators in the concrete columns bring visitors to the rooftop where winding walkways lead to a platform with magnificent views over the city.

Metropol Parasol is now symbolic to Spain's iconic structures and known worldwide.



## AMAZING SEE THROUGH WORKSHOP

Nothing in the world of Junya Ishigami—the celebrated Japanese architect, quite conforms to type. Chairs wear hats, socks and little sweaters knitted in fine-ply cream mohair; tables are paper thin, three-meters long and ripple when touched; huge metal boulders float up to the sky. Even the architecture he makes can be so immaterial as scarcely to exist. The piece he installed in the Barbican's Curve gallery has been constructed from hand-rolled carbon columns that are 0.9 mm thick, and secured by cross-bracing threads of just 0.2 mm, is almost impossible to see.



Kanagawa Institute of Technology (KAIT) Workshop is one such unique building designed by Junya Ishigami. Articulated with minimal means—exterior walls of thin glass and interior clusters of slender white columns—Ishigami's ethereal structure is barely a building at all.

Like the pavilion, the 21,410 sq. ft. workshop is modest in scale. The one-room building contains 14 freely arranged, open spaces. These include a check-in area, denoted by a Ishigami designed, donut-shaped counter, as well as specialized areas for pottery, woodworking, computer graphics, metal casting, and other media. There are also four multipurpose work spaces, a small supply shop and an office like alcove.

The structural system consists of three main steel components: a conventional two-way roof frame, 42 compression columns for vertical loads, and 263 post-tensioned columns that carry horizontal loads like mini sheer walls.

Construction was equally unorthodox. After workers put compression members and the roof frame in place, they suspended tension members from the girders but did not attach them at the bottom until after weighting the roof to simulate the snow load. When the weights were removed, the taut steel planes snapped into place and the roof popped up as expected. The specially made roof tilts slightly to drain rainwater, and weighs as little as possible.

With the KAIT Workshop, Juniya Ishigami has indeed pulled off a miracle as the glass building is located in the earthquake prone islands of Japan.



*\*This information is not intended as an alternative to personal, professional medical advice. The reader should consult a physician in all matters related to health, and particularly in respect of any symptoms which may require diagnosis or medical attention. The advice and information given in this mailer are believed to be accurate and true at the time of sharing with you and have been issued in good faith. Godrej & Boyce Mfg. Co. Ltd. shall not accept any legal responsibility or liability for any errors and omissions that may have been made.\**



Godrej & Boyce Mfg. Co. Ltd. Interio Division, Plant No. 4,  
Pirojshanagar, Vikhroli (W), Mumbai - 400 079.  
Website: [www.godrejinterio.com](http://www.godrejinterio.com) Toll Free: 1-800-2095511  
Tel: 022 6796 1700 / 1800 | Fax: 022 6796 1503  
Send your feedback to: [sjalan@godrej.com](mailto:sjalan@godrej.com)

Check out our e-newsletter at [www.godrejinteriointeredge.co.in](http://www.godrejinteriointeredge.co.in)