



2009 陶氏化学大中华区可持续发展报告 Dow Greater China Sustainability Report



陶氏化学

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石博韬
陶氏大中华区总裁
Peter Sykes, President of Dow Greater China

陶氏坚定与中国可持续发展同行。我们制定每一项决策都着眼于未来，这是陶氏的可持续发展的核心理念，我们为环境和社会所做的一切努力将永不停止。

Dow stands firmly behind sustainability in China. Our sights are set on the future with every decision we make. This is the core philosophy of Dow's sustainability and we will never stop working towards the betterment of the environment and of society.



尼尔·霍金斯
副总裁，可持续发展事务，
环境、健康和安全管理
Neil Hawkins,
Vice President of Sustainability and Environment,
Health & Safety

陶氏化学对于可持续发展的承诺体现在两个方面，一方面是工艺的创新，这使我们能够减少对全球环境的影响；另一方面是产品的创新，这能帮助客户及世界其它地方减少他们对全球环境的影响。通过与多个行业、政府、学术界、以及社会团体的合作，我们正在加速陶氏化学的可持续发展进程。

Dow's commitment to sustainability includes process innovation that leads to reducing our own global footprint, as well as product innovation that helps our customers and the rest of the world reduce theirs. We are accelerating our progress on all fronts through collaboration with industries, governments, academia and civil society.

陶氏始终秉持可持续发展理念，不仅对于自身发展影响深远，也对改变全球日益严峻的生态环境问题做出庄严承诺。技术与创新在陶氏实现“2015可持续发展目标”中发挥关键作用，在帮助节约能源、保护生态环境等方面也取得了明显成效。陶氏为此不断加大投入，履行我们的承诺：不求独善其身，力求兼济天下。

时值全球面临经济衰退和气候变化的严峻挑战，我们需要认真思考人类可持续发展的未来。在全球倡导发展绿色经济的大背景下，可持续发展的理念将进一步增强人们的环保意识，推进节能减排，促进绿色经济发展。

2009年9月，陶氏化学第9次荣登道琼斯可持续发展指数榜，这份荣誉向世人表明了陶氏在各项业务、所有地区和运营过程中取得的巨大进展。该指数是第一个在全球范围内对致力于可持续发展的公司进行财政表现评估的权威指标体系。展望未来，通过技术上的不断突破，陶氏在人们生活衣食住行的方方面面，一步步实现着能源消耗的减少，对环境影响的降低，同时产生出更有价值更环保的产品。陶氏不仅尽力减少自身对环境的影像，也始终肩负改善整个人类环境的责任，让我们的地球变得更加健康、美丽。实施可持续发展战略意义深远，影响重大，有利于促进生态效益、经济效益和社会效益的统一。它是我们共同的愿望，也是共同的责任。2009年陶氏化学大中华区可持续发展报告旨在介绍陶氏的可持续发展战略及其所作的努力，更好的与中国公众互动沟通陶氏的可持续发展理念。衷心希望这份报告的理念能影响到每一个人，深入到我们日常生活行为。欢迎您提出宝贵意见和建议！

Dow has consistently been committed to a philosophy of sustainability. Not only does this have a far ranging impact upon our own development, it denotes our sincere commitment to solve worldwide environmental problems. Technology and innovation play a critical role in helping us realize Dow's 2015 Sustainability Goals and to date, Dow has achieved extraordinary progress in cutting energy consumption and taking measures for environmental protection. Dow will continue increasing investment in this area to fulfill our commitment to not only better our own environmental performance, but to solve the world's most pressing environmental problems.

As the world deals with an ongoing economic recession and rising greenhouse gases, we must carefully analyze the future of sustainability for humankind. As global advocacy for green economy development grows, the concept of sustainability will further enhance public awareness of environmental protection, boost energy conservation efforts, continue emission reduction, and promote the development of a green economy.

In September 2009, Dow Chemical was recognized by the Dow Jones Sustainability Index for the ninth time. This was a testament to Dow's remarkable progress in its business aspects as well as regional and operational processes. The Dow Jones Sustainability Index is the first global index to track the financial performance of leading sustainability-driven companies worldwide. By looking towards the future, Dow works step by step to lower energy consumption and reduce environmental impacts in every aspect of our life from food and clothing to building and transportation. Dow achieves this through constant technological breakthroughs and by producing more high value and environmentally conscious products. Dow is dedicated to reducing our own carbon footprint and to providing humanity with a healthier and more beautiful planet.

The effects of the sustainability strategy implementation are both far reaching and deeply felt as we seek to promote the integration of environmental, economic, and social benefits. This is our common aspiration and our joint responsibility. The 2009 Dow Greater China Sustainability Report introduces Dow's sustainability strategy and efforts in the country. We seek to engage in a deeper and more meaningful interaction with the Chinese people on Dow's sustainability philosophy and we hope this report will be able to influence everyone to bring about positive changes in their daily lives and behaviors. We welcome your comments and suggestions.



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01 关于陶氏 Dow Global Overview

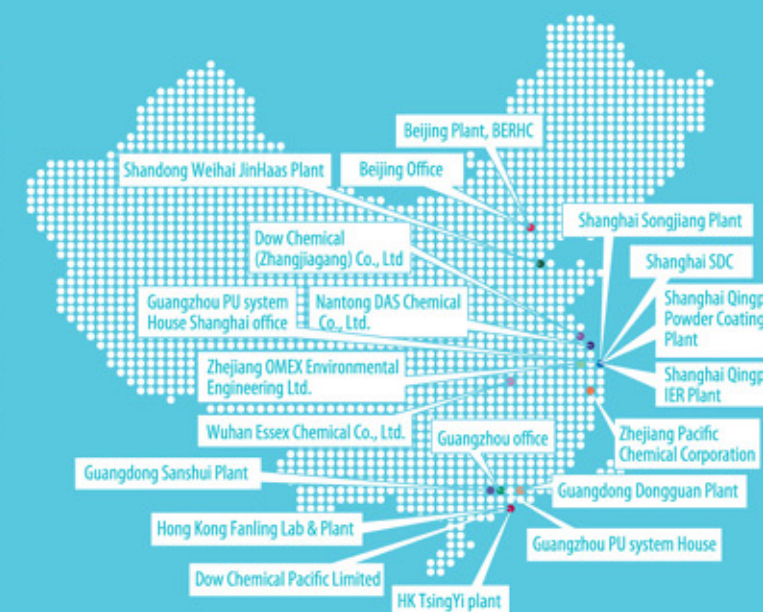
陶氏是一家多元化的化学公司，运用科学、技术以及“人元素”的力量不断改进、推动人类进步的基本要素。公司将可持续原则贯穿于化学与创新，致力于解决当今世界的诸多挑战，如满足清洁水的需求、提高能源效率、实现可再生能源的生产、提高农作物产量等。陶氏以其领先的特殊化学品、高新材料、农业科学和塑料等业务，为全球160个国家和地区的客户id提供种类繁多的产品及服务，应用于电子产品、水处理、能源、涂料和农业等高速发展的市场。2009年，陶氏年销售额为450亿美元，在全球拥有52,000名员工，在37个国家运营214个生产基地，产品达5000多种。

Dow combines the power of science and technology with the "Human Element" to passionately innovate what is essential to human progress. The Company connects chemistry and innovation with the principles of sustainability to help address many of the world's most challenging problems such as the need for clean water, renewable energy generation and conservation, and increasing agricultural productivity. Dow's diversified industry-leading portfolio of specialty chemical, advanced materials, agrosiences and plastics businesses delivers a broad range of technology-based products and solutions to customers in approximately 160 countries and in high growth sectors such as electronics, water, energy, coatings and agriculture. In 2009, Dow had annual sales of \$45 billion and employed approximately 52,000 people worldwide. The Company's more than 5,000 products are manufactured at 214 sites in 37 countries across the globe.

02 陶氏大中华区 Dow Greater China

- 五个业务中心 • 二十个生产基地 • 3,900名员工
- 2009年销售额超过37亿美元
- 并购罗门哈斯后，中国按销售额计算成为陶氏仅次于美国的全球第二大市场

- 5 business centers • 20 manufacturing sites
- 3,900 employees
- US \$3.7 billion sales revenue in 2009
- China becomes the second largest market behind U.S. in terms of sales, with the addition of Rohm and Haas



03 陶氏全新业务 New Business Division

2009年4月陶氏化学完成对罗门哈斯的并购后，进行了全面的业务重组。新的业务结构是基于优势竞争力和市场驱动力，进一步加强了陶氏特种化学品及高成长高收益的创新性业务的战略地位，业务重心更倾向于高新材料及功能性产品和系统。陶氏产品的应用涵盖民用、交通、纸张和印刷业、矿业、工业品市场、医疗健康与卫生保健、食品、电子产品、娱乐业、消费品和建筑农业等领域。

In April 2009, The Dow Chemical Company completed its acquisition of Rohm and Haas. The combination of Dow and Rohm and Haas creates a leading specialty chemicals and advanced materials company with a strong competitive edge and a broad geographic reach. Dow's leadership position has been further enhanced as an earnings-growth, innovative-driven company working for continued advancements in Advanced Materials and Performance products and systems. Dow's products and services are found in a wide range of industries including: Public Goods, Transportation, Paper and Printing, Mining, Industrial Goods, Pharmaceutical and Medical, Food, Electronics, Entertainment, Consumer Products, Building and Construction, Agricultural services and other related fields.

陶氏健康和农业科技 Dow Health and Agricultural Services

陶氏益农公司是陶氏化学公司的全资子公司，也是领先世界的五大农药跨国公司之一。陶氏益农将病虫害治理，种子及生物技术产品的研发和“人元素”战略完美融合，以不断创新的技术和高品质的农用产品来满足世界人口不断增长的物质和精神需要，极力为人类营造更安全、更健康和更优质的生活。陶氏益农拥有种类丰富的农作物保护产品，包括除草剂、杀虫剂、杀菌剂、熏蒸剂等，以及城市卫生用药。同时在生物技术方面，公司正大力发展种子、健康油、动物健康等新业务。

Dow AgroSciences, a wholly owned subsidiary of The Dow Chemical Company, is one of the world's top five multinational agricultural companies. Dow AgroSciences integrates the power of science and technology with the "Human Element" to constantly improve what is essential for human progress. AgroSciences provides advanced plant protection, seeds, and bio-technology to continuously innovate new technologies and agricultural products to fulfill the ever increasing needs of a growing human population. Dow AgroSciences provides various kinds of plant protection products including herbicide, pesticide, bactericide, fumigant, as well as urban pest management. At the same time, AgroSciences is making vast technological advancements in biology to increase the company's development in areas such as seeds, healthy oils, and animal health.

陶氏高新材料事业部 Dow Advanced Materials

陶氏高新材料事业部涵盖涂料材料、建筑、特殊材料、粘合剂和功能性聚合物以及电子材料五大业务领域。我们的使命是满足您日常的生活需求，提升生活的质量：我们用隔热保温板材为您提供节能的绿色建筑和舒适的居住体验；我们用保持色彩持久鲜亮的涂料为您带来明朗心情；我们用水溶性纤维为您提供预防感冒药中的持久药效；我们用先进的反渗透膜分离技术让您获得更纯净的水源；我们用卓越的造纸技术为您提供优质的纸张；我们用创新的半导体技术为您创造时尚的数码生活；我们提供丰富的家居及个人护理用品原料让您拥有更自信的外表。

Dow's Advanced Materials Division includes: Coatings, Building and Construction, Specialty Materials, Adhesives and Functional Polymers, and Electronic Materials. Our mission is to meet the daily needs of your life and enhance the quality of your life—we provide you with energy-efficient green buildings and comfortable living experiences with our thermal insulation board; long-lasting and durable paints to brighten up your home and your mood, water-soluble celluloses to prevent illness; purifying water sources with advanced RO (Reverse osmosis) technology to improve your water quality; paper-making solutions to improve the quality of your paper; innovative semiconductor technology to provide a trend setting digital lifestyle; as well as a diverse range of products for personal and household care to allow for a more confident you.



陶氏功能及系统产品事业部 Dow Performance Systems

陶氏功能系统业务部力求运用强大的系统产品为您生活所及的汽车、纤维衣物、家具、油类产品、电力电信、耐用消费品等领域提供持续有力的支持。其业务涵盖树脂系统、汽车产品系统、电线电缆、油类及气体产品和纺织纤维。陶氏功能系统业务部善用快速产品开发能力及全球技术服务网络，通过本地化的产品实验室和多功能生产设施，积极开发功能性解决方案，力求将专业的产品及服务惠及您的生产生活。

Dow's Performance Systems strive to use its powerful performance products and systems to provide reliable products that cover every aspect of your daily life from automotive, fiber clothing, furniture, oil products, power and telecommunications to durable consumer goods. Dow Performance Systems covers business fields of epoxy systems, automotive industries, wire and cable, oil and gas products, as well as fibers and textiles. Dow Performance Systems works through local product testing labs and multi-function production facilities to provide rapid production development capabilities and a global technical service network. With these services, Dow strives to develop functional solutions to benefit your life and production practices.



陶氏功能产品事业部 Dow Performance Products

陶氏功能产品业务部旗下的功能化学品运用化学元素的交融，助力油漆和涂料、汽车、包装及薄膜、造纸、粘合剂、电子、个人护理及制药等各行业，为您的生产和生活呈现高性能产品及解决方案。其环氧产品运用全球领先的技术及研发中心完善涂料、土木工程、粘合剂、覆铜板等工业领域。聚氨酯产品广泛应用于建筑、汽车、电器、家具、床褥、鞋底、运动器材等领域。

Dow Performance chemical products utilize a combination of chemical elements to boost fields such as paints and coatings, automobile, specialty packaging & films, paper, adhesive, electronic, personal care and pharmaceuticals to offer high-performance products and solutions in your life. The Epoxy products utilize advanced technology and R&D centers to perfect market segments such as coatings, civil engineering, structural and corrosion resistant composites, and adhesives. The Polyurethanes are employed for a broad range of applications including construction, automotive, appliance, furniture, bedding, shoe soles, decorative molding, athletic equipment and more.

陶氏基础产品事业部 Dow Basic Business

陶氏基础产品事业部包括陶氏基础塑料、陶氏基础化学两大业务核心的全新部门，为您带来更安全、环保、健康的基础材料产品。基础塑料业务利用可持续性解决方案及技术为您带来无忧使用的耐用消费品并帮助您品尝到新鲜原味的食品。基础化学业务覆盖您生活所需的彩妆及美容、娱乐及玩具、居家清洁剂、家具建材等多个领域，助您更健康、更自信地享受生活点滴。

Two core business divisions, Basic Plastics and Basic Chemicals, have been incorporated under Dow Basics to create a brand new department to bring you products that are environmentally friendly, safe, and healthy. Dow Basics Plastics uses sustainable solutions and technology to bring you durable consumer goods and fresher food products. Dow Basic Chemicals covers personal cosmetics, entertainment and toys, home cleaning, and house construction fields to enable you to live a healthier and more confident life.

04 陶氏引领可持续化学的历史回顾 Sustainability Global Milestones

2009

2015

1897	陶氏化学公司成立 Dow Chemical Company is founded
1906	陶氏与美国发明家乔治·威斯汀豪斯 (George Westinghouse) 合作, 开发节能的热电联产技术 (Co-Generation) Dow partners with George Westinghouse to develop energy saving co-generation
1919	成立有机化学研究实验室, 同年成立陶氏的第二家实验室——冶金实验室 The Organic Research Laboratory and the Metallurgical Lab open
1935	陶氏开始用细菌来降解苯酚废料 Dow introduces bacteria in degrading phenolic waste
1953	开发出水基丙烯酸技术, 掀起涂料行业的革命 Develops water-based acrylic technology that revolutionized the paint industry
1967	启动名为“向BTU (British Thermal Unit, 一种热量单位) 宣战”的节能计划 “War on BTUs” aims for energy conservation in every level of operations
1986	启动“减少污染奖励计划 (WRAP)”, 截止到2007年, 该计划所节约的总成本已达到20亿美元 The Waste Reduction Always Pays (WRAP) launches, saving almost \$2 billion by 2007
1991	陶氏成立可持续发展顾问委员会 (SEAC), 听取外界人士对公司政策和措施的意见 Dow commissions the Sustainability External Advisory Council (SEAC) to bring in external perspectives on its policies and initiatives
1995	发布2005年“环境、健康与安全目标” Dow announces 10 year Environment, Health & Safety Goals
2004	将“制定可持续发展标准”的主题确立为公司战略支柱之一 “Set the Standard for Sustainability” theme is formalized as a pillar of corporate strategy
2005	完成首个十年目标, 设立2015目标 First set of 10-year goals is concluded
2006	宣布“2015年可持续发展目标” 10-year Sustainability Goals for 2015 are launched
2007	在《蒙特利尔议定书》年会上, 陶氏益农被授予“联合国蒙特利尔议定书创新奖” Dow AgroSciences wins United Nations' Montreal Protocol Innovators Award
2008	美国环境保护署 (EPA) 将陶氏命名为“年度能源之星” U.S. Environmental Protection Agency (EPA) names Dow “Energy Star Partner of the Year”
2009	陶氏化学第9年荣登道琼斯可持续发展指数榜 Dow Jones names Dow to its Sustainability Index for the ninth year

05 可持续发展在陶氏 Sustainability at Dow

可持续发展要求在做每一个决定时都对未来有所考虑。这是我们与所生活的环境之间的关系——在创造经济繁荣和社会价值的同时, 保护我们的地球。

Sustainability requires making every decision with the future in mind. It is our relationship with the world around us – creating economic prosperity and social value while contributing to the preservation of our planet.

我们的使命——积极创新, 通过为客户提供可持续解决方案, 从而推动人类的不断进步。

Our Mission is to passionately innovate what is essential to human progress by providing sustainable solutions to our customers.

可持续化学秉承陶氏的“从摇篮到摇篮”理念, 它促使我们提高资源利用率、减少我们的运营足迹、为客户和利益相关者提供价值、为客户提供解决方案、改善当前和未来人们的生活质量。

Sustainable Chemistry is our “cradle to cradle” concept that drives us to use resources more efficiently, to minimize our footprint, provide value to our customers and stakeholders, deliver solutions for customer needs and enhance the quality of life of current and future generations.

“如果我们不能比别人做得更好, 那为什么还要做呢?”

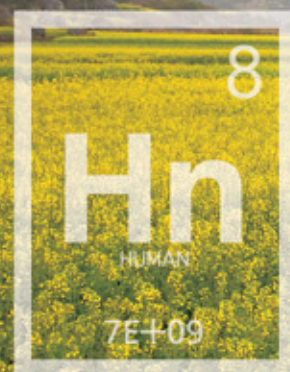
陶氏化学创始人
赫伯特·陶 (Herbert Dow)

“If you can’t do it better than others, why do it?”

Herbert Dow,
Founder of the Dow Chemical Company

“将事情做得更好”的理念抓住了持续改进的本质, 并预见到了一个更安全、技术更先进和更尊重环境的未来。我们一直遵循这一理念, 并在我们工作和服务的所有社区力争实现经济、环境和社会责任的平衡。事实上, 为环境和安全的努力除了出于道德和意识形态的考虑, 也给我们带来了良好的经济效益。

Herbert Dow captured the importance of sustainability by stating “If you can’t do it better than others, why do it?” Doing it better represents the essence of constantly improving to look forward to a future that is safer, more technologically advanced, and more respectful of the environment. We apply this thinking to everything we do as we seek to balance economic, environmental, and social responsibilities in the communities we work and serve in. Improving safety measures and environmental protection is not driven merely by ethical or ideological considerations. It simply makes good business sense.



2005 环境、健康和安全目标 2005 Environmental, Health and Safety Goals

1996年，陶氏率先成为第一批主动实施“环境、健康和安全（EH&S）”十年目标的化学公司之一。这一目标所涉及的内容包括：

- ① 在保护环境的同时，提高资源生产力，减少50%的化学排放，减少50%的废弃物和污水排放，以及每磅产量减少20%的能耗；
- ② 在加强安全生产方面，将伤亡和职业病发病率降低90%，容器泄露发生率降低90%，运输事故发生率降低90%；
- ③ 责任与义务方面，坚持将社会责任与公司发展整合在一起，培育一种全球的社会责任企业文化，并积极影响行业内的企业。陶氏于2006年2月在迪拜签署了全球责任关怀[®]公约。

针对2005目标，陶氏已经实现了：

- 用10亿美元的投资为公司累计节约了高达50亿美元的费用
- 减少了16亿磅固体废物，可以在415个足球场堆出1米深的厚度
- 减少用水1830亿磅，相当于17万美国家庭1年的用水量
- 节约了900万亿热量单位的能量，足够800万美国家庭1年的用电量
- 减少了84%的个人安全与健康事故的发生

陶氏在实现并超越了其十年环境、健康和安全目标后，又制定了更具挑战性的“2015年可持续发展目标”。

In 1996, Dow became one of the first companies to implement 10-year Environment Health and Safety (EH&S) goals. A set of public, voluntary goals were set for Dow to improve its EH&S performance by 2005 in a variety of aspects. These included:

- ① Increasing resource productivity while safeguarding the environment via reduction of chemical emissions by 50%, waste and waste water by 50% and energy use per pound of production by 20%
- ② Tightening safety measures by reducing job-related injuries and illnesses by 90%, decreasing primary containment incidents by 90%, and reducing transportation incidents by 90%
- ③ Signing the Responsible Care[®] Global Charter in February 2006. Dow attaches great importance to CSR as a significant component of company development and is committed to building up a global corporate culture of social responsibility to actively influence other chemical industry enterprises

The improvements we implemented over the past decade have allowed us to:

- Save \$5 billion on an investment of \$1 billion in technology and processes to increase resource productivity

- Reduce solid waste by 1.6 billion pounds – enough to fill 415 athletic fields one meter deep
- Reduce waste water by 183 billion pounds – equal to water usage for 170,000 U.S. homes for one year
- Save 900 million BTUs of energy – enough to power 8 million U.S. homes for one year
- Reduce our injury and illness rate by 84%

Dow has built on the success of these 10-year EH&S goals by setting even more ambitious sustainability goals for 2015.

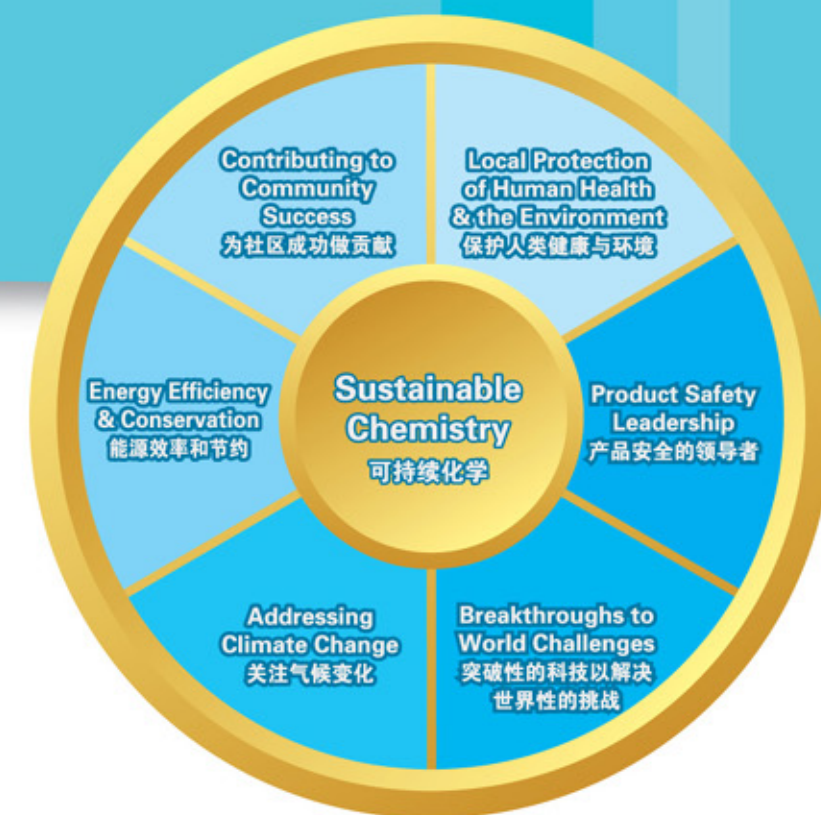
2015可持续发展目标 2015 Sustainability Goals

2015目标的辐射范围更广，跨越了社会、道德和环境等诸多领域，承诺进一步支持社区建设、开发创新产品，并为应对全球面临的挑战不懈努力。陶氏2015年可持续发展目标包括：

- 以可持续化学为优势的产品销售比例将翻倍，达到10%
- 为解决世界面临的挑战，实现至少三项突破
 - 充足的食物供给 ◦ 经济的住房 ◦ 可替代能源
 - 可持续的供水 ◦ 改善人体健康和安全的
- 温室气体年均减排2.5%
 - 自1990年起，陶氏的温室气体（GHG）减排量超过20%，能源强度减少了38%，优于《京都议定书》所规定的标准
- 能源利用效率提高25%
 - 自1994年来，由于能源强度的减少，陶氏已经节约了86亿美元的费用
- 发布所有产品的安全评估报告
 - <http://www.dowproductsafety.com>
- 实现本地社区对陶氏工厂100%的接受和认可
- 环境、健康与安全（EH&S）的主要指标在2005年数值的基础上再平均改善75%

2015年可持续发展目标设定以来，陶氏在其全球网站上定期推出可持续发展报告，公开在减少温室气体排放、降低污染、保护并促进社区人类和环境健康发展等方面的阶段性成果。更多报告，请查询

<http://www.dow.com/commitments/>



The 2015 Goals span a broader spectrum of social, ethical and environmental dimensions. These goals are focused on strengthening our relationships with the communities where we operate and improving our product stewardship and innovation in order to address global challenges and make a lasting, positive contribution to the world. The goals include:

- Doubling the percentage of sales to 10% for products which are developed based on sustainable chemistry
- Achieving at least three breakthroughs that will significantly solve worldwide challenges to:
 - Adequate food supply ◦ Affordable housing ◦ Alternative energy
 - Sustainable water supply ◦ Improved personal health and safety
- Reducing our greenhouse gas intensity by 2.5% per year
 - Since 1990, Dow has proactively reduced its energy intensity by 38% and its own greenhouse gas footprint by more than 20%, a level that exceeds Kyoto Protocol targets
- Reducing our energy intensity by 25%
 - Since 1994, Dow has saved \$8.6 billion from improved energy intensity
- Publishing product safety assessments for all products
 - www.dowproductsafety.com
- Achieving individual community acceptance ratings of 100% at Dow sites where we have a major presence
- Achieving on average a 75% improvement of key indicators for Environment, Health and Safety operating excellence from 2005 baseline

Since Dow has set these challenging goals, we have produced regular sustainability reports to document our progress and achievements regarding reduction of chemical emission and pollution, improvements of environmental protections, and the improvement of health and safety measures of the communities in which we work and serve. For more information please visit: <http://www.dow.com/commitments/>

06 陶氏环境、健康与安全行动在中国

Environment, Health and Safety Actions in China

基础设施投资

Infrastructure Investment

绿色生产基地张家港

陶氏张家港生产基地是陶氏化学公司在中国和亚太区的核心生产基地，由于在安全、环保以及社区关系等方面的卓越表现，先后于2005年6月和2006年10月获评为“江苏省环境友好企业”和“国家环境友好企业”。

在张家港生产基地，陶氏采用了多项先进的污染控制工艺和防治技术，从源头减少废物的产生，提高资源利用率。自1997年在张家港投资设厂，陶氏张家港基地已在扬子江国际化学工业园投资了约3亿美元，建成了三家世界一流的工厂。2009年，第四家工厂，陶氏化学张家港世界级醇醚工厂正式投产。在陶氏张家港生产基地，企业单位产品综合能耗及水耗达到国际同行业先进水平。企业“三废”处理和达标排放率为100%，排放指标符合国家规定的排放标准和污染物排放总量控制指标要求。

Green Manufacturing Site in Zhangjiagang

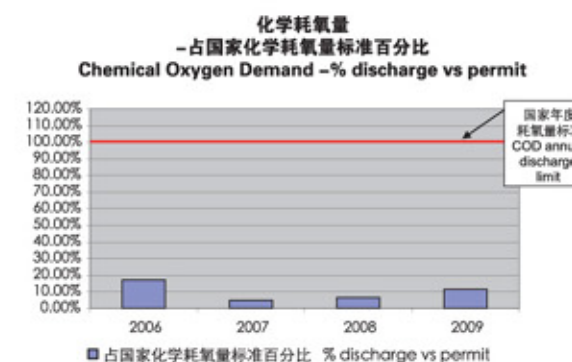
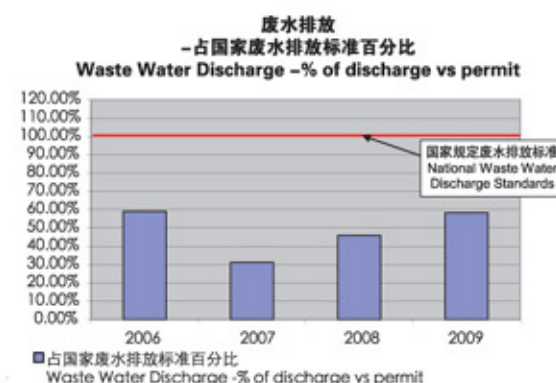
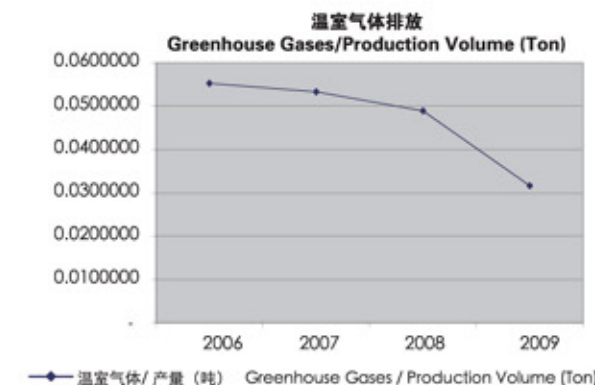
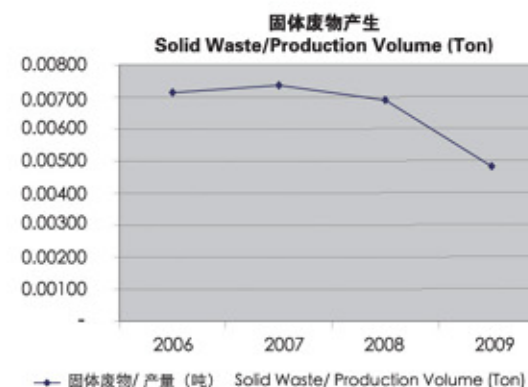
Dow's Zhangjiagang site is Dow's core manufacturing site in China and Asia Pacific. Because of its exceptional performance in safety, environmental protection, and community relations, it was named "Jiangsu Province's Environmentally Friendly Enterprise" in June 2005 and "National Environmentally Friendly Enterprise" in October 2006.

The Zhangjiagang site employs a host of advanced pollution control processes and techniques to reduce waste production and to increase resource utilization rates. Since the first Zhangjiagang manufacturing plant was established in 1997, Dow has invested about US \$30 million in the Yangtze River International Chemical Industrial Park and opened three more world class plants. The fourth world-class factory, a new propylene oxide-based glycol ethers facility, was opened in 2009. Dow's Zhangjiagang site has reached internationally advanced levels for overall energy consumption and water consumption per unit of production among industry players. Its "three wastes" treatment (gas, water, and solid waste) and emission rate of plants reached 100%, in compliance with national emission standards and pollutant emission control requirements.

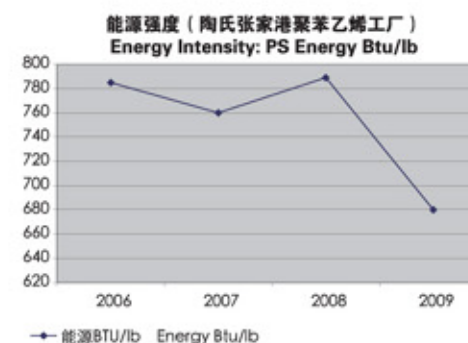


张家港生产基地2009年排放及耗能表现

Zhangjiagang Site 2009 Consumption and Emission Performance



注释：张家港醇醚工厂的投产是2009年度废水排放增加以及化学耗氧量增加的主要原因
Notes: Amount of Waste Water and Chemical Oxygen Demand increased as the new Glycol Ether plant opened in 2009



注释：在2008年聚苯乙烯工厂更新了能够优化利用能源的设备并改进了生产工艺，使能源消耗强度大幅减少。
Notes: In 2008, new, more energy efficient equipment was installed in the Polystyrene plant and energy usage was greatly decreased.



节能环保的上海陶氏中心

2009年6月，位于上海浦东张江高科技园区内的上海陶氏中心正式落成。作为陶氏在亚太区的业务中心和创新中心，上海陶氏中心由多个功能部门组成，包括世界领先的研发中心、全球信息技术中心及其它管理和综合设施。上海陶氏中心为员工创造健康舒适的工作环境，为了实现这个目标，陶氏将创新的科技和理念融入陶氏中心的设计中，并选用符合节能环保标准的材料及机械系统，将陶氏中心建成了高价值的节能环保建筑。“陶氏客户创新中心”拥有全球一流的创新环境，无论硬件还是软件环境均体现了无处不在的陶氏科技，为人们缔造着更绿色、更便利的美好生活。

Sustainably Designed Shanghai Dow Center

In June 2009, Dow's Shanghai R&D Center was formally completed in Zhangjiang Hi-Tech Park in Pudong District of Shanghai. As Dow's business and innovation center for the Asia Pacific region, the Shanghai Dow Center is comprised of several functional divisions, including a world-leading R&D center, global IT center and other management and integrated facilities.

The Shanghai Dow Center seeks to create a comfortable and healthy working environment for its employees. To achieve this goal, Dow incorporated innovative technologies and concepts into the Center's design, using especially selected materials and mechanical systems that conform to the highest environmental protection and energy saving standards to develop the Center into a high-value, energy-efficient and eco-friendly building. The Dow Customer Innovation Center boasts a world-class and innovative environment, utilizing Dow's most advanced technologies to create a greener, easier, and better life.



分享在中国的最佳实践案例 Sharing Dow's Best Practices in China

积极推动责任关怀®

责任关怀®是全球化学行业内为了安全地研发、制造、运输和处理化学品而志愿发起的。陶氏自1950年在中华地区开展业务以来，一直积极推动责任关怀® (Responsible Care®) 理念的普及。基于强烈的责任感，陶氏作为国际化学品制造商协会 (AICM) 的一员，积极参与其主办的各项活动，其中2009年5月陶氏在张家港地区参与了公众开放日活动，10月在北京赞助并参与了AICM与CPCIA (中国石油和化学工业协会) 共同主办的第三届中国责任关怀®大会。

Actively Promoting Responsible Care®

Responsible Care® is a voluntary initiative within the global chemical industry for companies to improve their health, safety, and environmental performance. Dow has been operating with a strong sense of responsibility since Dow started operations in Greater China in the 1950s. As a member of the Association of International Chemical Manufacturers (AICM), Dow has actively participated in all AICM organized events and activities. In May 2009, Dow participated in the Public Open Day activities in Zhangjiagang and in October 2009, supported and participated in the 3rd Session of the China Responsible Care® Conference jointly organized by AICM and China Petroleum & Chemical Information Association (CPCIA).

制定标准 Setting Standards

清洁生产示范项目——国家环保总局

陶氏化学一贯致力于积极响应政府所倡导的发展清洁生产以及防止污染的措施。2005年国家环保总局与陶氏化学公司“清洁生产示范合作项目”正式启动，主要从制药、印染、电镀、造纸、酿酒等重污染行业选取中小企业帮助其实施清洁生产。该项目已经取得了显著的经济和环境效益，并产生了良好的社会反响。

Cleaner Production Demonstration Project – State Administration of Environmental Protection

Dow Chemical has always been dedicated to the active response of government measures to implement clean production practices and prevent pollution. In 2005, the State Administration of Environmental Protection and Dow officially launched their pilot project, the Cleaner Production Cooperation Program. The program selects small and medium enterprises (SMEs) to implement clean production standards in heavily polluted industries such as pharmaceuticals, printing and dyeing, electroplating, papermaking and brewery. To date, this project has yielded significant economic and environmental benefits, as well as received positive response from the public.

提高中国食品安全风险评估能力——中国疾病预防控制中心营养与食品安全所

从2008年至2010年，陶氏和中国疾病预防控制中心营养与食品安全所达成了为期三年的合作伙伴关系，旨在提高中国的食品风险评估能力，促进对行业用化学品、食品添加剂和食品接触材料、化妆品以及农药等的有效评估和安全使用。陶氏携手营养与食品安全所，在中国化学品评估及监管领域积极推行以科学为依据、基于风险的决策文化，同时提高中国在监管与科学领域的食品安全风险评估能力。

Boosting China's Food Safety Risk Assessment Capability – National Institute for Nutrition and Food Safety of Chinese Center for Disease Control and Prevention

Dow entered into a three-year partnership from 2008 to 2010 with the National Institute for Nutrition and Food Safety of the Chinese Center for Disease Control and Prevention. This partnership works to increase China's food risk assessment capabilities, promote effective assessment methods and the safe use of industrial chemicals, food additives, food contact materials, cosmetics, and pesticides. Dow has worked together with the National Institute for Nutrition and Food Safety to actively cultivate a risk-based and scientific decision-making culture in China's chemicals assessment and regulation areas, while boosting China's food safety risk assessment capability in regulatory and scientific areas.

安全管理项目——国家安全生产监督管理总局

2006年，陶氏化学与国家安全生产监督管理总局开展了危险化学品安全管理项目，旨在帮助中国化工行业提升安全管理理念和水平。陶氏化学秉持责任关怀®的理念，强调环境保护和生产安全管理，并有遍及美国和加拿大的应急处理团队。在该项目的合作中，陶氏以多种方式、多种渠道向其它化工企业普及推广安全理念，帮助加强安全教育培训，提高安全意识和安全管理技术水平。

Safety Management Project – State Administration of Work Safety

In 2006, Dow Chemical partnered with the State Administration of Work Safety to launch the Hazardous Chemicals Safety Management Project. The project aims to help China's chemical industry by enhancing safety management skills and expertise. Within the principles of Responsible Care®, Dow attaches special importance to environmental protection and production safety management and operates emergency response teams throughout the United States and Canada. During this project, Dow has disseminated and promoted safety among other chemical enterprises through multiple channels and helped them strengthen safety education and training, boost safety awareness and enhance safety management technology.

“安全操作与应急响应预备”项目——国家环保部与联合国环境规划署

2008年9月，陶氏化学携手国家环保部与联合国环境规划署启动为期2年旨在提高化学行业安全操作与应急响应预备能力的合作项目，为中国化工安全与应急响应预备制定标准。2009年8月20日，三方在张家港启动“安全操作与应急响应预备”试点项目，该项目依据联合国环境规划署“地方应急意识和准备方案”(APELL)程序，为安全操作和社区级应急准备提供实用信息，开创了国内同类合作项目的先例。陶氏的张家港工厂被选为试点项目的重点示范企业。

"Safety Operation and Emergency Response and Preparedness" Project – Ministry of Environmental Protection and the United Nations Environment Programme (UNEP)

In September 2008, Dow Chemical joined the Ministry of Environmental Protection (MEP) and the United Nations Environment Programme (UNEP) to launch a two-year program to increase emergency response and preparedness capabilities, aiming to set standards for China's chemical safety management system. On August 20, 2009, the three parties initiated the "Safety Operation and Response and Preparedness" Pilot Project in Zhangjiagang. The pilot project is the first cooperative effort of its kind in China to provide practical information on safer operation and the implementation of community-based emergency preparedness under UNEP's Awareness and Preparedness for Emergencies at Local Level (APELL) process. Dow's Zhangjiagang facility was selected as the primary demonstration site.



07 陶氏企业社会责任关怀 Corporate Social Responsibility

一直以来，陶氏遵循其以人为本的企业文化、高度负责的履行企业社会责任，受到社会广泛认可。陶氏对企业社会责任的重视表明了为社会做贡献的决心，陶氏通过回报社会实现我们贡献社会的承诺。陶氏深知，企业是社会的一员；企业和社会中获得资源和发展空间的同时，也应该回馈社会，支持公益事业。陶氏不仅在全球多处持续增加慈善公益事业的资金投入，也对遇到困难的地区和当地居民及时伸出关爱的援助之手。

At Dow, we believe in the power of the Human Element and our dedication to fostering a people-centric performance corporate culture and implementing corporate social responsibility has been widely acknowledged and recognized. Dow's commitment to corporate social responsibility is a testament to our determination to contribute to society and we strive as an enterprise to be a responsible member of society. Dow places a high value on giving back to the community and supporting public welfare as we utilize resources and developmental space. Dow has not only invested funds to contribute to charitable programs worldwide, but has extended a helping hand to aid disaster stricken areas and its local residents.



01 陶氏员工给民工子弟学校的学生们提供基本商业知识培训
Dow employees provide basic business knowledge skills training to migrant school students
02 陶氏员工与参与青年成就组织学生合影
Group Picture of Dow employees and Junior Achievement students

可持续发展理念引入京沪小学课堂 国际青年成就组织项目 Junior Achievement Project

陶氏和国际青年成就组织（Junior Achievement）的合作内容十分丰富，包括陶氏员工志愿参与JA青年培训课程，为年轻人提供职业导航，为民工子弟学校的学生义务提供辅导等。

特别值得一提的是从2009年春季学期起，陶氏化学公司携手国际青年成就（Junior Achievement）组织将可持续发展理念带入京沪两地33所学校，向1,800多名小学生提供一门新颖的选修课程——《我们的城市》。课程旨在从社会经济学角度对学生们进行可持续发展教育。以浅显易懂的方式介绍银行、职业、货币、消费者等与城市相关的社会经济学概念，并通过课堂活动、实践和游戏互动等形式加强孩子们对资源和环保的认识，培养他们良好的行为和生活方式。此外，70多名陶氏员工也作为志愿者，积极投入到教学工作之中。

Dow has forged extensive partnerships with Junior Achievement (JA) in many areas. For example, Dow employees participate in JA youth training courses as volunteers to provide career guidance for young people and provide free coaching and mentorship for students of schools for children of migrant workers.

Beginning in Spring 2009, Dow Chemical partnered with Junior Achievement to introduce the "Our City" course in 33 schools in Beijing and Shanghai to over 1,800 elementary school pupils. The course aims to introduce the concepts of sustainability from a socioeconomic perspective. "Our City" introduces pupils to complex urban concepts such as banking, occupation, currency, and consumer, from social and economic perspectives. Through interactive classroom activities, practices, and games, Dow has strengthened awareness of resource and environmental protection among the pupils to help them develop better behavioral and lifestyle habits. There are over 70 Dow employees volunteering as teachers for the "Our City" course.

人人有家 “仁人家园” Habitat for Humanity

2009年11月，40位陶氏员工与“仁人家园”组织一同前往四川邛崃，志愿参加建房屋的劳动，为当地家庭提供经济适用房住宅。“仁人家园”（Habitat for Humanity）是由美国前总统吉米·卡特支持的非政府组织，自1983年以来陶氏一直在全球范围内赞助并通过各种方式支持该组织的各项活动。

In November 2009, a team of 40 Dow employees went with Habitat for Humanity to Qionglai City in Sichuan Province to build homes and provide affordable housing for local residents. Habitat for Humanity is a non-governmental organization supported by former US President Jimmy Carter. Dow has funded and supported Habitat for Humanity's global charitable activities since 1983.



“仁人家园”感谢陶氏对此项目的赞助
Dow is recognized for their sponsorship of Habitat for Humanity China

天灾无情 人有情——捐助汶川与台湾灾区 Donation to Wenchuan Earthquake and Typhoon Morakot Disaster

中国汶川大地震发生之后，陶氏是第一时间向地震灾区捐助的公司之一。公司及时提供了包括水处理系统、农用产品、建筑保温板与现金援助，帮助灾区人民恢复正常生活，重建家园。2009年11月，陶氏在灾区援助的三所希望学校正式开建。至今陶氏援助四川的资金和物资总额已累计超过一千万。2009年8月，台风“莫拉克”袭击台湾地区。陶氏在获悉灾情后第一时间捐赠600多万台币的善款。12月，陶氏又通过台湾红十字会向受灾台风“莫拉克”重创的台湾屏东县和饮水资源匮乏的南投县望美村捐赠饮用水设备，以帮助这两个地区的居民改善饮水条件。陶氏对灾区的现金及物资捐助累计已超过1000万台币。

After the Wenchuan Earthquake, Dow was one of the first companies to provide funds and assistance to the earthquake disaster areas. Dow made a rapid response to supply drinking water units, agricultural products, and Styrofoam™ brand insulation materials to support earthquake victims in the rebuilding of their homes and their recovery to a normal life. In November 2009, Dow also began construction on three Project Hope schools in the disaster area. To date, Dow's donation to Wenchuan recovery has amounted to more than RMB 10 million.

In August 2009, Typhoon Morakot hit Taiwan. After receiving this news, Dow immediately responded with a donation of NT \$6 million. In December, Dow with Taiwan Red Cross assistance donated 2 units of drinking water systems to improve the drinking water situation for victims of Typhoon Morakot in Taiwan's Pingdong County and Nantou County. In order to address water pollution issues, the systems were assembled with 10 ultra filtration and 10 FILMTEC™ reverse osmosis membrane elements to supply clean drinking water to typhoon victims. The total amount of Dow's donations has exceeded NT \$10 million.

传递希望 赞助希望工程 Hope School Project

2007年始，陶氏设立专款援建希望学校，惠及成千上万名莘莘学子。此举再次印证了陶氏对企业社会责任的长期承诺。截至2009年12月，陶氏通过中国青少年发展基金会进行捐赠，累计650万人民币，共将在中国大陆建立13所希望学校。

In 2007, Dow set up a special fund to rebuild and construct "Project Hope" schools to enable thousands of students to return to school. This project illustrates Dow's long-term commitment to corporate social responsibility. As of December 2009, Dow has donated RMB 6.5 million through the China Youth Development Foundation to fund the construction of 13 Hope Schools in Mainland China.



01 陶氏化学希望小学工程开工建设奠基礼
Stone laying ceremony of Dow Chemical's Project Hope Elementary School
02 陶氏化学领导向小学生代表赠送书籍和学习用品
Dow Chemical Company Executives present books and stationery to elementary school student representatives

上海世博会志愿者项目 World Expo 2010 Volunteer Program

陶氏积极鼓励陶氏员工参与世博志愿者项目。陶氏是第一家与世博展示中心签约提供志愿者服务的企业。陶氏员工把亲身参与世博展示中心的志愿者工作作为提升公民意识、服务回馈社会的良好机会。目前，陶氏内部已经招募到150余名上海世博会展示中心志愿者，每周都有陶氏员工在世博展示中心担任解说员、记者和展览维护联络人等工作。

Dow actively encourages its employees to participate in its World Expo volunteer program. Dow was the first company to provide volunteer support for the Shanghai World Expo Exhibition Center. Dow employees have taken the program as an opportunity to raise public awareness and give back to society. To date, over 150 Dow employees have volunteered to serve at the Center as narrators, reporters, and display maintenance focal points.



01 陶氏通过香港红十字会向汶川地震灾民捐赠40万港币
Dow donates HK\$ 400,000 to HongKong Red Cross for Wenchuan Earthquake
02 陶氏志愿者向游客和本地居民介绍世博会
A Dow volunteer describes Expo to local residents and tourists

08 创新解决方案助力可持续发展的未来 Innovation for Sustainable Growth

- 我们的产品被运用在每个人生活的方方面面;
Our products are used in all aspects of human life;
- 我们为食品包装提供树脂材料, 保证安全和适宜的食品供应;
We provide resin materials for food packaging to ensure a safe and adequate food supply;
- 我们为制药业提供功能性辅料, 帮助人们更健康长寿;
We provide functional excipients for the pharmaceutical industry to help people live a healthier and longer life;
- 我们为电子产品生产塑料, 帮助人们保持更密切的联系;
We produce plastics for electronic products to help people keep in closer contact with each other;
- 我们制造出了更加灵活实用的泡沫塑料, 帮助人们拥有更加舒适的办公和家居环境;
We manufacture more flexible and practical foamed plastics to help create a more comfortable office and home environment;
- 我们为涂料生产提供主要的原料, 帮助人们拥有更加明亮与舒适的家;
We provide key raw materials for paint production to help build brighter and more comfortable homes;
- 我们生产离子交换系统和螯合剂, 让人们喝到的水更安全, 使海水变成饮用水;
We produce ion exchange systems and chelating agents to enable people to drink safer water and to convert seawater into drinking water;
- 我们生产汽车部件, 令汽车更坚固、更安全、更节能;
We produce auto parts to make cars more robust, secure and energy efficient;
- 我们通过隔热保温技术让居室变得更加舒适;
We use thermal insulation technology to make homes more comfortable;
- 我们为生产墨水和纸张提供材料, 帮助人们更好的沟通;
We provide materials for ink and paper production to facilitate communication among people;
- 我们为生产个人护理用品提供原料, 帮助人们拥有更加自信的外表。
We provide raw materials for personal care product production to help people look and feel more confident.



我们加大新能源的开发以求助力全球共同面对的能源危机

Develop Renewable Energy to Help Solve the Global Energy Crisis

风能

为了满足对于“绿色能源”的爆炸性市场需求, 解决风能行业的技术挑战, 陶氏环氧产品下辖的陶氏环氧系统组合产品正式推出了应用于风能发电的AIRSTONE™系统组合产品。

Wind Energy

To meet growing market demand for green energy and overcome technological challenges of wind energy, Dow Epoxy Systems officially launched AIRSTONE™ systems for wind energy.

核能

DOWEX™离子交换树脂因其更高的产能、更强的动力、更短的漂洗时间以及更长的树脂寿命, 已被成功运用于全球各地的核电站长达15年, 并在这一要求甚高的领域表现杰出。

Nuclear Energy

DOWEX™ ion exchange resins have proven higher capacities, stronger dynamic forces, shorter rinse times, and longer life spans to ensure high quality resin products. They have been successfully used in nuclear power stations worldwide for 15 years and have continued to deliver exceptional performances in this highly demanding field.

太阳能

太阳能产业的快速发展拉动了太阳能级硅片市场的需求。陶氏特殊化学品部开发了两种专用产品, 以帮助硅片生产商解决相关问题: 硅片切削液广泛应用于太阳能和电子级硅片生产, 以显著降低切削消耗, 提高切削效率; 硅片清洗剂有助于简化硅片清洗流程, 保证硅片质量。陶氏POWERHOUSE太阳能屋顶板将低成本的薄膜铜铟镓硒(CIGS)光伏电池组合入专有的屋顶板设计之中, 该创新产品设计降低了安装成本。

Solar Energy

The rapid development of solar energy has boosted demand for solar energy grade silicon wafers. Dow Specialty Chemicals has developed two specialty products to address problems in silicon wafer production, silicon wafer cutting fluids and silicon wafer cleaning agents. Silicon wafer cutting fluids are extensively used in solar energy and electronic grade silicon wafer production to reduce cutting depletion and increase cutting efficiency. Silicon wafer cleaning agents help simplify the silicon wafer cleaning process to guarantee high quality silicon wafers. Dow Solar Solutions unveiled its line of Powerhouse Solar Shingles that integrate low-cost, thin-film CIGS photovoltaic cells into a proprietary roofing shingle design, representing a multi-functional solar energy generating roofing product.



我们帮助提供更健康、安全的水 Provide Healthier and Safer Water

● 我们使用FILMTEC™反渗透膜技术支持北京节约水资源

北京的三家污水处理厂在污水再利用项目中采用了陶氏水处理及过程解决方案业务部的FILMTEC™反渗透膜设备。这三处新增的污水再利用设施是与北京奥运会有关的基础设施投资的一部分。据估计, 此次使用的设备部件每天能回收处理4.5万吨污水, 这一处理量在与北京奥运相关的市政污水再利用项目中居首位。

● We use FILMTEC™ reverse osmosis membrane technology to help Beijing save and reuse water resources

Dow Water Solutions implemented FILMTEC™ reverse osmosis membranes in waste water reclamation and reuse facilities, in conjunction with an infrastructure investment for the 2008 Beijing Olympic Games. It is estimated that the components treated 45,000 tons of waste water per day, the largest volume of municipal waste water in Olympic related projects in Beijing.

● 我们利用DOWEX™树脂为核电站提供超纯水解决方案

陶氏致力于为中国核电站提供高效节能的超纯水解决方案。控制水质是核电站成功运转至关重要的因素, DOWEX™树脂能提供更彻底、更有效的再生, 在改善水质的同时更能减少树脂的交叉再生, 从而提高系统的成本效益。目前DOWEX™树脂产品已成功安装于岭澳核电站(二期), 该设施在保障华南电力供应方面发挥着关键作用。

● We use DOWEX™ resins to provide ultraclean water solutions for nuclear power stations

Dow is committed to providing energy efficient clean water solutions for China's nuclear power stations. Water quality control is essential to the successful operation of nuclear power stations. To improve water quality, DOWEX™ resins work to provide a more complete and effective regeneration, reducing resin cross-regeneration in order to boost the system's cost-benefit performance. Presently, DOWEX™ resins have been successfully installed in the Ling Ao Nuclear Power Plant (Phase 2), a critical source for power supply in Southern China.

● 我们采用“双膜法”技术进行海水淡化

海水淡化方面, 陶氏主动响应中国政府节能减排的号召, 分享其在国外海水淡化工程中的先进经验。采用了DOW FILMTEC™反渗透膜和DOW Ultrafiltration 超滤膜的大唐王滩电厂反渗透海水淡化系统是中国第一个投运的“双膜法(超滤+反渗透)”海水淡化项目, 有效地节约了淡水资源, 创造了经济、环保、绿色、节能的运营模式, 为中国海水淡化技术的发展作出了新的、有意义的探索。

● We use double-membrane technology to desalinate seawater

Dow is proactively responding to the Chinese government's call for energy conservation and emission reduction by sharing its advanced expertise in seawater desalination projects. Datang Wangtan Power Station uses DOW FILMTEC™ reverse osmosis membrane and DOW Ultrafiltration membranes, a reverse osmosis seawater desalination system that is the first “double membrane (ultrafiltration+ reverse osmosis)” desalination project put into operation in China. It has effectively conserved freshwater resources, created a cost effective business model that is environmentally friendly and energy efficient, and created a meaningful approach for seawater desalination technology development in China.



我们如何让建筑变得更加节能、舒适 Make Buildings More Energy Efficient and Comfortable

作为节能建筑材料领域持续领先的公司，陶氏化学不仅为全球提供领先的建筑节能解决方案，还为中国节能建筑的推广起到了带头的作用。整合了舒泰龙™隔热保温板、纤维素醚、可再分散乳胶粉和界面剂等系列陶氏产品在内外墙保温系统旨在提供完整、可靠的建筑外墙节能解决方案。舒泰龙™隔热保温板以其独特的蓝色（Blue™）为市场所认知，是建筑保温节能的极佳材料，已在全球2100万栋建筑中应用，每年节约能耗约100亿美元。2009年，陶氏建筑业务部又成为上海世博会城市最佳实践区国内首座“零能耗”生态示范住宅“沪上·生态家”屋面保温产品的独家供应商和赞助商。从设计规划到技术和产品的选用再到施工与运行维护，这幢房屋集成运用了现有的建筑节能前沿技术，比同类建筑节能达75%。充分展现了可持续发展的生态住宅理念，探索普遍适用型宜居模式，诠释了“关注环保节能，倡导乐活人生”的全生态居住理念。

As a world leading provider of building energy efficiency solutions, Dow has been committed to the Chinese market through advanced R&D, a promotion of highly efficient products and technologies, and a delivery of energy-saving construction of thermal insulation solutions to domestic customers. The system integrates a series of Dow products, such as a STYROFOAM™ XPS insulation board, cellulose ethers, re-dispersible latex powders, and primers to deliver the most complete and reliable brand for external wall insulation finishing systems. STYROFOAM™ XPS insulation, with its distinctive Blue™ color, is the most widely used extruded polystyrene foam insulation in the market. It is used in 21 million buildings around the world, saving about \$10 billion in annual energy costs. In 2009, Dow Building Solutions was appointed as a lead supplier and sponsor to the Shanghai Eco-House, a unique zero energy consumption building located at the Urban Best Practices Area (UBPA) which will be a highlight of the Shanghai World Expo. The eco-house uses state of the art product selection and energy efficient building design and planning technologies for the construction, operation, and maintenance, conserving 75% more energy than other similar structures. The Shanghai Eco-House illustrates concepts of “considering environmental protection and energy efficiency to advocate a Lifestyle of Health and Sustainability” and demonstrates cutting edge ecological, green, and energy-saving technologies. It will become a model for the future development of urban living and architecture.

惠新西街12号楼为北京市既有建筑节能改造的试点工程。此次节能改造达到65%的国家标准，采用了舒泰龙™隔热保温板后大大地提高了住户的舒适度，住户高兴地表示：“冬天室内温度要比往年高不少，不用再穿棉袄和大棉鞋了；夏天空调开的比往年要晚一些，使用频率也要少多了，真正成了冬暖夏凉的节能楼了。”

As part of the “Energy Saving Reconstruction in Existing Buildings in China” put forward by the Ministry of Construction, Dow Building Solutions contributed STYROFOAM™ in the roofing renovation of No. 12 Building on Huixin Street West, a renovation demo project. The renovation product enables the building to reach 65% of the national energy efficiency requirements. One resident exclaimed, “In the winter, the temperature in the room was much warmer than in previous years and we no longer have to wear cotton wadded jackets and shoes. In the summer, we can turn on our air-conditioners later and less often. It has truly become an energy efficient building which is warm in the winter and cool in the summer.”



我们如何让出行变得更绿色更安全 Deliver Greener and Safer Driving Experiences

全世界的驾车者始终都在寻找性能更高、成本更低、污染更小、更加舒适和耐用、以及能效更高和更安全的汽车。陶氏汽车系统事业部的先进材料解决方案能够帮助您实现所有这些目标。

All around the world, drivers are searching for more comfortable, durable, energy efficient and secure cars with higher performances, lower costs, and less pollution. Advanced Materials solutions from Dow Automotive Systems can help you realize these goals.

安全是车辆工程设计的重要元素。陶氏汽车系统事业部的结构性粘合剂——BETAMATE™抗冲撞耐久胶和BETAFOAM™空腔填充泡沫——提供更强的车体刚性结构与更出色的碰撞保护。

Safety is an essential element of vehicle engineering. Structural adhesives BETAMATE™ crash durable adhesive and BETAFOAM™ cavity structural foams from Dow Automotive Systems provide enhanced vehicle structural integrity and greater crash protection.

陶氏的AERIFY™柴油微粒过滤器提供了一种独特的多孔微观结构，有助于提高发动机性能，同时提高燃油效率，减少二氧化碳排放，为驾乘者带来清洁而高效的汽车。

Dow's AERIFY™ Diesel Particulate Filters provide an advanced, highly porous microstructure that enhance engine performance, while reducing fuel consumption and lowering carbon dioxide emissions to deliver clean and efficient cars for drivers.



陶氏通过减轻车重来节约能耗。高性能塑料、泡沫和树脂可代替钢铁，从而降低成本和车重。SPECTRIM™反应力可模压聚合物比钢铁轻40%，比其它塑料轻25%；BETAFOAM™结构泡沫可提高车辆结构完整性，同时减少钢铁材料用量；IMPAXX™吸能泡沫可提高安全性能，并比其它吸能选择轻50%。2009年，由欧盟委员会共同出资，并与欧洲汽车研究委员会（EUCAR）合作开展的多方协作研发项目——“超轻型汽车”（SLC），致力于降低二氧化碳排放和缓解气候变化。陶氏汽车系统业务部是参与该项目的37家企业之一。在原型汽车上总共使用了98米的陶氏汽车系统结构粘合剂，使车身重量降低了30%（基于大众高尔夫车型）。

Dow conserves energy through vehicle weight reduction. High performance plastics, foams, and resins are substituted for steel in order to reduce costs and weight. SPECTRIM™ reaction moldable polymers are 40% lighter than steel and 25% lighter than other plastics; BETAFOAM™ structural foams contribute to vehicle structural integrity, while reducing steel usage; IMPAXX™ energy absorbing foams allow for improved safety performance while reducing weight by 50%. In 2009, the European Commission co-funded a collaborative research and development project, Super Light Car (SLC) coordinated through the European Council for Automotive Research (EUCAR). Dow Automotive Systems is one of the 37 partners involved in this project which is dedicated to reducing carbon dioxide emissions and mitigating effects of climate change. A prototype car uses only 98 meters of structural adhesives from Dow Automotive Systems, reducing weight by 30% (based upon the VW Golf Model).

2009年在中国，Gem-Year使用了陶氏DYNATHANE™ Specialty PU Elastomer（特殊聚氨酯弹性体）产品，成功提高其产品的安全性能。陶氏成为第一家成功获得铁道部认证的本土扣件系统的生产厂家，并且被提名为国家3000公里高速铁路项目的供应商。

In 2009, Gem-Year successfully boosted its product safety performance in China by utilizing Dow's DYNATHANE™ Specialty PU Elastomer. It became the first local fastener system manufacturer to receive certification from the Ministry of Railways and was designated as the official supplier for the 3,000 kilometer National High-Speed Railway Project.

我们提供绿色食品，提倡健康饮食 Provide Innovative Food Products to Promote Healthy Diets

21世纪初，中国人更加注重科学营养膳食理念并开始逐步养成粗细搭配、低脂少盐的饮食习惯。陶氏沃尔富纤维素事业部研发的提取自天然材料的可溶性膳食纤维，添加到烘焙食品、酱汁、果汁、甜品和奶制品中不仅能够改善食品质感，并且可以延长保质期。作为脂肪的替代品，这类纤维素还是素食等低脂食品的重要配方成分，帮助人体控制胆固醇、胰岛素和血糖水平，促进身体健康。更重要的是纤维素主要从木浆、棉花中提取，原料全部坚持取自具有森林可持续经营认证的供应商。

From the beginning of the 21st century, Chinese people began paying attention to scientifically based and nutritional diets to adopt balanced low-fat, low-salt dietary habits. From extensive research and development, Dow Wolff Cellulosics has extracted soluble dietary fibers from natural materials to add to baked foods, sauces, juices, desserts and dairy products. It has been proven to vastly improve the taste of packaged foods and prolong its shelf life. As a fat substitute, cellulose is an important ingredient in low-fat foods such as vegetables that helps the human body control cholesterol, insulin, and blood sugar levels. More importantly, cellulose is extracted mainly from wood pulp and cotton materials that are sourced exclusively from suppliers with forest sustainability licenses.

陶氏化学不仅仅提供绿色的膳食纤维，更加细致入微地关注食品包装的安全和环保。其生产的聚乙烯树脂用于包装材料以及保鲜膜，可以最大程度保证液体及生鲜品的高品质。

Dow Chemical not only works to supply green produced dietary fibers but also pays attention to food packaging safety and environmental protections. Its polyethylene resins are used in packaging materials and preservative films to guarantee high quality liquid and fresh food products.

陶氏益农的NEXERA™产品完美的实现“美味”与“健康”的兼得。作为一种天然稳定的芥花籽油和葵花籽油，NEXERA™完全不含反式脂肪，饱和脂肪含量最低，用做烹饪油，不仅可以保存食物的美味，还可以使食物更健康，用该产品代替普通烹饪油制作的炸薯条，反式脂肪的含量可以减少80%左右。目前包括肯德基和麦当劳在内的50家食品企业和连锁店都采用了该产品。

Dow AgroSciences's NEXERA™ Canola meets worldwide demand for "tastier" and "healthier" oil products. As a naturally stable Canola and sunflower oil, NEXERA™ contains no trans fat and low saturated fat. When used as cooking oil, it can seal in the food's natural flavors as well as produce a healthier dish. When used to make chips, it reduces trans fat content by approximately 80%. At present, NEXERA™ Canola oil is used by 50 fast food chains, including KFC and McDonald's.



我们如何用可持续发展的创新方案， 优化人们每天的生活 How We Use Sustainable and Innovative Solutions to Improve People's Everyday Lives

• 控释产品

来自陶氏沃尔富纤维素事业部的METHOCEL™ Premium控释产品，尤其是间质性控释系统，其持久的药效既能起到更好的治疗功效，又极大的方便了患者。作为植物来源的水溶性纤维素，它的神奇功效就在于能够延长或控制药物活性成分的释放速度，从而给病患带来方便。

• Controlled-Release Products

METHOCEL™ Premium CR products (particularly the controlled-release (CR) matrix systems) from Dow Wolff Cellulosics enable better treatments and greater patient convenience. The plant-originated water soluble cellulose ethers deliver miraculous effects capable of extending or controlling the release speed of active pharmaceutical ingredients, bringing more convenient treatment methods to patients.

• 个人护理

陶氏家用与个人护理一直致力于可持续性发展，并整合陶氏化学全球技术以及丰富的行业经验为客户带来更多创新环保解决方案。其中，表面活性剂ECOSURF™EH系列特种表面活性剂，不单能够显著提高家用清洁剂的清洗性能，而且易于生物降解。防晒增效剂SolTerra™Boost则是针对亚洲人对防晒的特殊要求研发的新产品可以明显地增加防晒指数，达到双重防晒（UVA与UVB）的效果，特别针对导致皮肤老化或造成皮肤癌的UVA防护作用更为显著。

• Personal Care

Dow Home and Personal Care is committed to pursuing sustainable development and leveraging the global technologies and extensive industry experiences of Dow Chemical to deliver more innovative and environmentally friendly solutions for customers. ECOSURF™ EH specialty surfactants can significantly boost the cleaning performance of household cleaning agents. Additionally, the specialty surfactants are readily biodegradable.

SolTerra™ Boost is a new product tailored to meet specific requirements of sun protection for Asian skin. It dramatically increases the ultraviolet A (UVA) and sun protection factor (SPF) of your formulations with a single ingredient. It is effective in protecting against UVA that causes skin aging and cancer.

• 电子产品

陶氏使电子设备更小巧、灵敏和牢固，并且价格更低廉。我们的塑料可为电视机和计算机外壳内的灵敏成分提供防护，使诸如便携式音乐播放器等设备经久耐用。

陶氏用先进的光纤维绝缘技术提高因特网的效率。通过在半导体行业内的不断创新，我们使速度更快、体积更小、智能程度更高的计算机芯片成为可能。

最近，陶氏科研人员开发出一项全新的电压层板技术——Z-TECH™环氧树脂。这种树脂不仅可以达到无铅焊接的要求，而且易于加工，也更为坚韧。

• Electronic Products

Dow makes electronic devices more complete by delivering compact, agile, and robust functions at a lower cost. Our plastics protect even the most sensitive equipment inside TV sets and computer cases as well as make devices like portable music players more durable. Dow uses advanced optical fiber insulation technology to boost Internet efficiency. By pursuing continuous innovation in the semiconductor industry, we make it possible to deliver faster, smaller and smarter computer chips.

Dow R&D personnel have recently developed a new voltage plane technology- Z-TECH™ Epoxy Resin. This durable resin can meet non-lead welding requirements and is also able to be easily processed.



“人”元素

人，是一切变化的基础，
它让我们洞察万物的演化，
触及万物的本质。

解决疑惑，
创造理想，
延展生命；
人，
世上最基本，
最基础的元素。

Human Element

The Human Element is the
element of change.
It is a way of seeing that gives us
a way of touching.
Issues.
Ambitions.
Lives.
The Human Element.
Nothing is more fundamental.
Nothing more elemental.

09 以人为本的企业文化 People-centric Corporate Culture

人，一个没在元素表中列出，却是陶氏能够百年传承，不断发展的原动力。当把“人”元素加入公式，化学才真正发生作用，万物的变化才有可能。人是一切变化最根本，最自然的元素。陶氏运用科学、技术和“人”元素的力量，把化学和可持续发展有机结合，不断推进人类进步。陶氏及全球员工秉承可持续发展理念，为企业、环境及社区创建绿色未来。

While Human is not listed in the periodic table of elements, it has been the primary driving force of Dow's continuous growth for the past century. Only by including the Human Element into the equation can the chemical industry truly play its role to make change possible for everything on earth. Human is the most basic and natural element of change. Dow leverages this human element with the power of science and technology to integrate sustainability into the chemical industry and enhance human progress. Dow and its employees stand firmly behind the philosophy of sustainability to create a more prosperous future for businesses, communities and the environment.

陶氏员工是公司最重要的资产。陶氏团队的素质是公司获得竞争优势的持续性资源。因此，陶氏注重建立多元化和包容性的企业文化，努力为员工提供多样化的学习资源，充满活力的学习、工作和生活环境，广阔的事业发展平台，富有竞争力的薪酬和福利，进而激发员工无限的潜能。

Dow employees are the company's most important corporate asset. The Dow team is a continuous resource base on which the company draws on to gain competitive advantages. Consequently, Dow is focused upon fostering a diverse and inclusive corporate culture and unlocking unlimited potential by providing diverse learning resources, vigorous work and living environments, career development platforms, competitive wages, and fringe benefits to its employees.



人才吸引和储备 Talent Attraction and Retention

自2005年以来,陶氏通过与高校密切合作每年定期举办主题不同的校园招聘活动,旨在吸引全国各大高校的优秀毕业生加入公司,解决人才急需的同时,更为企业未来的发展壮大储备力量。该举措大大促进了公司人才战略的发展,使陶氏满足不断变化的市场需求,保持始终站在技术发展的最前沿。4年来,陶氏从高校招募了约400名优秀人才;为培养年轻的在校人才,陶氏开展暑期实习项目。2005至2008期间,共有191名学生来到陶氏实习,其中有24%的实习生在毕业后加入陶氏工作。为鼓励和培养优秀学生,陶氏与数所高校合作设立奖学金。2005年至2008年间,陶氏共向621名学生提供了价值320万元人民币的奖学金。

Since 2005, Dow has teamed up with universities to organize campus recruitment events with a variety of different themes to attract top university graduates to join the talent reserve for future corporate development and expansion. This initiative has succeeded in significantly promoting our corporate talent strategy and enabled Dow to meet changing market demands and remain at the forefront of technology development. In the past four years, Dow has recruited around 400 top university graduates and launched a summer internship program to further develop young talent. From 2005 to 2008, there were 191 students who joined Dow's internship program and 24% of interns joined Dow after their graduation. Taking additional steps to encourage and develop young talent, Dow has also set up a scholarship in collaboration with several leading universities. From 2005 to 2008, Dow offered RMB 3.2 million in scholarship to 621 students.

具有竞争力的薪酬和福利 Competitive Wages and Fringe Benefits

陶氏的薪酬和福利在全球的雇主中名列前茅,而且陶氏强调的是全面薪酬的理念,员工的薪酬不仅仅是工资,还包括一些短期或长期的奖励计划和形式多样的福利计划。全面薪酬理念更具保障性、竞争性、公平性和灵活性。

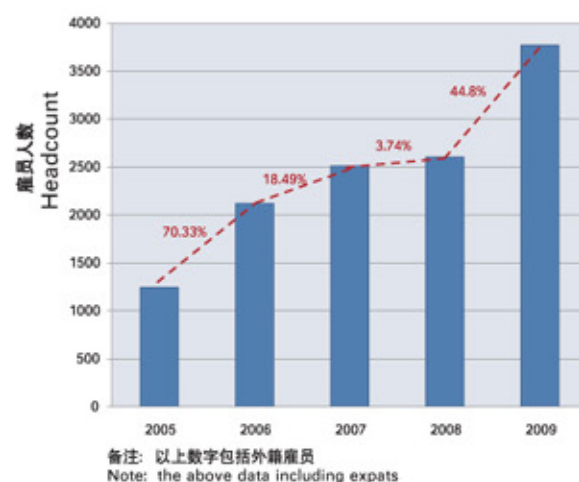
Dow offers generous compensation and benefits to its employees and emphasizes the comprehensive compensation philosophy under which employee compensation not only covers wages but also includes short-term or long-term incentive and welfare plans. Through this combination, the comprehensive compensation package is more secure, competitive, fair and flexible.

员工全方位发展 Comprehensive Employee Development

陶氏重视员工的事业和自身全方位发展,为员工提供丰富、人性化的培训和工作机会,准备了随时可以获取的有关职业发展的学习资源和个人工具,做到尊重和满足员工个体的发展意愿以及生活需要。导师制提供让员工自发自愿学习的机会。陶氏鼓励任何富有专长和经验的资深员工成为导师,帮助新老员工发展、成长和获得成功。除课堂式培训以外,陶氏还为员工提供了其它学习途径。Mylearning网站提供了上百种网络培训课程,员工可随时访问该网站,有针对性地学习相关知识或技能。

Dow places high value upon the career and personal development of employees, providing them with personalized training and working opportunities, preparing them with learning resources and personal tools for career development, and respecting and meeting their employee development needs. Mentorship programs offer development learning opportunities for employees on a voluntary basis. Dow encourages any experienced senior employees to become mentors or coaches and help new and old employees to develop, grow and succeed. In addition to classroom-style training, Dow also provides other learning avenues for employees. The Mylearning website provides over 100 online training courses that employees can access at anytime to learn relevant knowledge or skills at their own pace.

陶氏大中华区雇员人数一览 (2005-2009)
Dow Greater China Employee Headcount (2005 - 2009)



丰富多彩的员工生活 Rich and Colorful Employee Lives

陶氏员工的业余活动丰富多彩。员工的活动包括陶氏春节晚会、家庭日、运动会、宠物日、郊游等,舞蹈团、英语俱乐部、烹饪小组、电影俱乐部、以及日常的健身保健活动也很丰富。公司为帮助员工解决在社会中有可能发生的压力或冲突,推出员工辅助计划,为员工及其亲属提供专业心理咨询服务。

Dow employees enjoy a rich and fun variety of leisure activities, including Dow's Spring Festival Party, Family Day, Sports Games, Pet Day, Dance Club, English Club, Cuisine Group, Movie Club and daily fitness programs. In addition, to facilitate conflict resolution that may arise from any job or society related pressures, Dow has launched the staff coaching program to provide professional psychological consulting services for employees and their family members.

企业文化 Corporate Culture

陶氏不仅把“人元素”作为其可持续发展战略的重要环节,把“以人为本”的理念贯穿其业务发展的始终,而且把人看作企业发展最重要最根本的元素。“人”元素是陶氏化学的首要元素。陶氏推崇多元化和包容的文化,充分体现了公司对人的尊重。所谓多元化是指陶氏人为公司所带来的多方面的才能、多元的视角和丰富的经历。所谓融合是指每个人都尽其所长。多元化成为陶氏一大竞争优势,陶氏也因而取得更佳业绩,在全球成功发展。所有的陶氏人都有责任创造一个公正、融洽的工作环境,从而实现个人和企业的共同成功。

Dow not only regards the Human Element as a core pillar of its sustainability strategy but also integrates its People Focus philosophy into every aspect of its business development process as human is the most basic element in corporate development. Dow fosters a diverse and inclusive corporate culture as a testament to our respect for people. Diversity refers to the multiple perspectives and experiences Dow employees bring to the company. Inclusion helps employees flourish and grow to work to the best of their ability. These two elements enable Dow to deliver exceptional performances, key competitive advantages, and successful global development. Every Dow person holds a responsibility to create a fair and inclusive working environment to realize personal and corporate success together.

社会责任 Social Responsibility

陶氏员工始终把社会责任视为己任,用实际行动实现可持续发展。自2007年,来自陶氏的300名员工志愿提供了2400多小时的义务教育和志愿服务,开展了“职业发展”论坛,职业见习日,以及为农民工子弟子女授课等活动。此外,陶氏员工在汶川地震后第一时间进行捐助,踊跃参与世博展示中心志愿者等活动。为此,陶氏化学公司得到了社会各界的广泛认可,公司于2008年荣获由中华英才网颁发的第六届中国大学生最佳雇主Top50奖以及“新上榜奖”,在50家获奖公司中,陶氏是唯一一家获此殊荣的跨国化学公司,同时也获得了由Universum评选的“大学生眼中理想雇主”等奖项。

Dow employees have taken Corporate Social Responsibility on as their own responsibility and put sustainability into practice through concrete actions. Since 2007, 300 Dow employees have volunteered over 2,400 hours in voluntary educational services in programs such as the Career Development Forum and Job Shadow Day, as well as providing mentorship for children of migrant workers. Dow employees were also among the first to make donations to contribute to rescue and rebuilding efforts after the Wenchuan Earthquake. In addition, Dow employees have actively donated their volunteer services to the Shanghai World Expo Visitor Center. In recognition of the tremendous results of Dow's Corporate Social Responsibility efforts, Dow Chemical was the only multinational chemical company to be named one of the "Top 50 Best Employers of Chinese University Students" and the "First Time Award Recipient" by China HR.com in 2008. Dow Chemical was also named one of the "Most Ideal Employers of University Students" by Universum.



2009年奖项和荣誉

Awards in 2009

公司 Corporate

2009中国企业社会责任榜杰出企业奖（第一财经评选）
Outstanding Enterprise Award of 2009 China Corporate Social Responsibility List (China Business News)

台湾地区环境、安全、健康（EH&S）奖
Taiwan's Environment, Safety and Health (EH&S) Award

2009中国最佳企业公民奖（21世纪报系评选）
2009 China's Best Corporate Citizen Award (21st Century Newspapers)

全球责任中国行动——最佳商业技术应用奖（中国经营报评选）
Global Responsibility China Action- Best Business Application Award (China Business)

2009中国杰出雇主奖（国际企业研究基金会评选）
2009 China's Top Employer Award (Corporate Research Foundation International)

2009年中国能源效率奖项——最佳品牌企业（中国房地产协会及《城市住宅》评选）
2009 China Annual Energy Efficiency Award for Best Brand and Enterprise (China Real Estate Association and City Residential)

技术创新奖（瑞士汉捷新闻评选）
Technology Innovation Award (Ringier)

2009年中国50绿公司十佳（商务周刊评选）
Top Ten Company of China "50 Greenest Companies" (BusinessWatch.com)

最佳能源效率企业（陕西省建设厅住宅产业化促进中心评选）
Best Energy Efficiency Contributor (The Residential Industrialization Promotion Center of the Shaanxi Department of Construction)

十佳节能减排企业（新华网及新华社评选）
Top 10 Energy Conservation and Emissions Reduction Corporations (XINHUANET & XINHUA News Agency)

产品与技术 Product / Technology

2009最具成长力水业品牌（中国水利协会评选）
2009 Best Growth Brand of Water Industry (China Water Engineering Association)

最佳新技术奖项——SatinFX配送系统（PCHI-China评选）
Best New Technology Award for the SatinFX Delivery System (PCHI-China)

十佳跨国水处理设备供应商（慧聪网评选）
Top 10 MNC Suppliers of Water Treatment Equipment (HC360.com)

十佳跨国油漆涂料供应商（慧聪网评选）
Top 10 MNC Suppliers Of Paints & Coating (HC360.com)

最佳薄膜供应商（慧聪网评选）
Best Membrane Supplier (HC360.com)

2009新型墙体和建筑节能材料行业优质奖（上海建筑材料协会评选）
2009 Industry Quality Award for New Wall and Energy-Saving Building Materials (Shanghai Building Material Industry Association)

十佳皮革化工企业（慧聪网评选）
Top 10 Leather Chemical Company (HC360.com)