

# Promoting Sustainable Consumption

## 推廣可持續消費

### Product Comparative Test on Appliances

#### Air-conditioners

The Council tested 15 models of fixed-capacity cooling-only, window-type air-conditioners with cooling capacity of 2.58 to 2.65 kilowatts (kW), or in layman's terms, "1-horsepower".

In relation to the Cooling Seasonal Performance Factor (CSPF), a ratio of annual total heat removal to total energy consumption, 1 model had a notably low CSPF value of 2.62 but the other 14 models achieved a rating between 2.93 and 3.08.

All tested models were marketed with Grade 1 label under the Mandatory Energy Efficiency Labelling but the test found only 9 met the Grade 1 requirement. The most expensive model had the lowest CSPF value, meeting only the Grade 3 rating. The rest were rated Grade 2.

Another crucial performance factor for air-conditioners is their cooling capacity. The test found that the cooling capacity of the 15 models ranged from 2.45 kW to 2.62 kW. Only 1 model was measured to be higher than its claimed value while the claims of the other 14 models fell short by 1.7% to 7.1%.

Though the discrepancies were within the acceptable limit (10%) of the code of practice and international practices, the Council stressed that manufacturers should continue to improve the accuracy of its claim in performance.

### 電器產品比較測試

#### 冷氣機

本會測試15款定頻式淨冷型窗口式冷氣機，其聲稱製冷量由2.58-2.65千瓦不等，俗稱「一匹冷氣機」。

樣本的製冷季節性表現系數（CSPF），即全年總排熱量與總耗電量的比率，顯示有1款樣本的CSPF值明顯較低，只有2.62；其餘14款樣本的CSPF值則介乎2.93-3.08。

全部樣本標示的強制性能源效益標籤均為一級，但測試發現只有9款樣本的實際能源效益符合一級的水平。最貴但CSPF值最低的1款樣本，實際能源效益只屬3級。而其餘樣本屬2級。

冷氣機另一個關鍵性能是其製冷能力。15款樣本所量得的製冷量由2.45-2.62千瓦不等。只有1款量得的製冷量稍高於其聲稱，其餘14款較其聲稱低1.7%-7.1%。

雖然上述製冷能力差距仍為「產品能源標籤實務守則」及國際慣常做法容許的可接受公差範圍(10%)之內，但本會強調，製造商應繼續提高其聲稱表現的準確度。



Sustainable consumption is one of the most pressing challenges of our time that affects both the current and the next generation. To educate and empower consumers in making greener choices for environmental protection, the Council carries out testing and research to assess the sustainability of goods and services. It conducts comparative product testing on high energy appliances, such as air-conditioners and electric storage water heaters, and undertakes research on sustainability-related issues – for example, children’s textile products and eco-labelling on snack foods – all of which helps promote sustainable consumption.

可持續消費是我們這一代和下一代最逼切的挑戰之一。消委會致力評估產品和服務對可持續消費的影響，藉以教育和鼓勵消費者作出環保的選擇。透過比較和測試耗電量較高的電器產品，如冷氣機和儲水式電熱水爐，以及研究可持續消費的議題，如兒童服飾和零食環保標籤等，實踐可持續消費概念。

## Electric Storage Water Heaters

The Council and the EMSD conducted a joint-test to evaluate the safety level and performance of 12 models of electric storage water heaters with rated input power of 3,000 watts, comprising 6 unvented types and 6 shower types.

The test found that 6 models classified as Grade 1 under the Voluntary Energy Efficiency Labelling Scheme (VEELS) had an actual energy efficiency grading lower than that listed on their labels. The discrepancy found in 3 models exceeded the permissible limit and subsequently 2 models were deregistered from the scheme.

Measured against the latest grading standard of the VEELS and calculated on the basis of the test results, only 1 out of 11 single-tank models was rated Grade 1 in energy efficiency, 5 models were rated Grade 2 and 5 were rated Grade 4 and below.

## Air Purifiers

The deteriorating air quality has made air purifiers a popular home appliance. The Council tested 12 models of air purifiers with a price difference of over 5 times from \$1,099 to \$7,080.

5 of the tested models claimed a larger applicable maximum room size and 5 models claimed a smaller maximum room size. 2 models made no claims about applicable room size and were promoted for their additional functions as electric fans or 2-in-1 air purifying fans. The test results showed that the claimed applicable room size made by the manufacturers might not necessarily be useful in determining a product’s actual capacity to produce clean air.

## 儲水式電熱水爐

本會與機電工程署合作測試市面上12款家用儲水式電熱水爐的安全及效能，各樣本的額定輸入功率為3,000瓦特，包括6款無排氣管式及6款花灑式樣本。

測試發現6款在自願性能源效益標籤計劃中屬一級的樣本，其實際能源效益級別較標籤標示的為低。當中3款的差異超出可接受的公差範圍，而當中2款樣本隨後退出計劃。

按測試結果及自願性能源效益標籤計劃的最新評級標準來計算，11款單內膽樣本中只有1款屬於一級效益，5款屬於2級，另有5款屬4級或以下。

## 空氣淨化機

持續惡化的空氣質素使空氣淨化機成為熱門的家庭電器。本會測試12款售價介乎\$1,099-\$7,080的空氣淨化機，其價錢相差超過5倍。

其中5款樣本聲稱有較大的適用房間面積，另外5款的適用房間面積則較小。另外2款沒有聲稱適用房間面積，並宣傳產品亦可作風扇使用，統稱為「二合一空氣淨化風扇」。測試結果顯示廠商所聲稱的適用房間面積，未必有助評估產品的實際淨化表現。

In the test, the Clean Air Delivery Rate (CADR) was adopted as the measure to indicate the effectiveness of a product in delivering contaminant-free air with a higher value representing a better performance in removing a specific pollutant from the air. The findings showed a vast variation in air purifying performance among the tested models. For instance, the variations in purifying speed among the models for the removal of cigarette smoke, dust and pollen were 2.8 times, 2.4 times and 4.3 times respectively. In particular, when it came to removing formaldehyde, the variation in purifying speed among the models reached a distinctive difference of 26 times.

The findings also showed a considerable difference in energy efficiency among the tested models. Based on the CADR measured for the removal of cigarette smoke, dust, pollen and formaldehyde per watt of energy used, the energy efficiency varied by 86%, 87%, 91% and 93% respectively.

Manufacturers were urged to disclose the CADR on their products, as well as the test standards adopted, so as to provide objective reference and information to help consumers choose an air purifier wisely.

## Organic Snacks with Eco-labels

The Council collected 30 models of popular snacks, including chocolates, candies, potato chips, rice cakes, nuts, chestnut and dried fruits, to examine their nutrition labels and organic certification logos.



The labels on 15 of the 30 models had different organic certification logos. Most of them bore the European Union (EU) logo (9 models) and the US Department of Agriculture (USDA) (12 models). The rest had logos from Australia, New Zealand, Japan or Korea. Some had logos from more than 1 certification body.

Based on the information provided by local suppliers, the Council found that the certification information or certificates did not list the brands or product names of the snacks concerned. The Council urged the certification bodies or food manufacturers to enhance the transparency of organic certification to help consumers verify the organic claims made on the food products.

The report also quoted the EU and USDA requirements as examples of different organic certification systems. In view of the absence of any specific legislation governing organic food claims in Hong Kong, the Council advised the Government to refer to overseas experience to establish clear "organic food" standards and requirements to enhance information transparency and safeguard consumers' rights and interests.

測試採用潔淨空氣量 (CADR) 來顯示樣本提供不含特定污染物空氣的能力，數值愈高表示淨化能力愈好。各樣本的淨化空氣表現極為參差。例如，樣本中清除香煙煙霧、塵埃及花粉的速度分別相差2.8倍、2.4倍和4.3倍。尤以清除甲醛的速度差異最大，不同樣本的淨化速度相差可高達26倍。

樣本的能源效益差別亦頗大。根據每瓦特耗電量可產生的CADR，發現各樣本清除香煙煙霧、塵埃、花粉及甲醛的能源效益分別相差約86%、87%、91%及93%。

本會促請製造商註明產品的CADR以及測試標準，提供客觀數據以方便消費者審慎選購產品。

## 有機零食及環保標籤

本會搜集了市面30款常見零食樣本，包括朱古力、糖果、薯片、米餅、果仁、栗子及乾果，檢視其營養標籤及有機認證標誌。

30款樣本中有15款標示與有機認證相關的標誌。當中以歐盟 (9個) 及美國農業部 (12個) 的標誌佔最多。其餘的標誌包括澳洲、紐西蘭、日本或韓國。部分包裝附有多於1個有機認證的標誌。



根據本地代理商提供的資料，本會發現其認證資料或證書中，不一定列明零食的品牌及名稱。本會促請認證機構和生產商提高有機食品認證資料的透明度，方便消費者核實食品上的有機聲稱。

報告還引用歐盟和美國農業部的要求作為不同有機認證體系的例子。鑒於本港現時未有任何法例監管有機食品的聲稱，本會建議政府參考外地經驗，清晰釐定「有機食物」的標準和要求，以提升相關資訊的透明度，保障消費者權益。





## Children's Textile Products with Eco-Labels

The Council examined the eco-labels of 36 models of textile products for infants and children, including garments, bibs, hats, blankets, towels, pads, comforters and textile toys.

The Global Organic Textile Standard (GOTS) and OEKO-TEX Standard 100 were the most prevalent eco-labels found on textile products. In addition to having a minimum requirement of fibre content from organic sources, the GOTS certification system involves comprehensive requirements on the entire production process, including the cultivation, finishing and packaging of the textile products, energy and water consumption, and chemical discharges, which are all regulated under the voluntary certification system.

The OEKO-TEX Standard 100, on the other hand, addresses the level of hazardous chemicals that remain in the textile products. Under the OEKO-TEX certification system, textile products that are intended for infants and are expected to come into extended close contact with human skin have to fulfil more stringent requirements.

Among the 36 models assessed, 14 were labelled with GOTS certification logo or claimed to be in compliance with the relevant certifying requirements. Making use of the information shown on product labels, promotion materials and supplementary information provided by the suppliers, the relevant certifying information of 12 models could be accessed from the GOTS official website: 6 of them were certified textile products; 4 were made with certified fabrics, fibres or yarns; certifications of 2 models were expired, and the certifying information of 2 models could not be accessed.

On the other hand, there were 10 models labelled with OEKO-TEX certification. The relevant certifying information of 9 models was available on its official website: 7 of them were of Class 1 (articles for babies and toddlers) accredited textile products, and the rest were of certified fabrics.

Before making a purchase decision, consumers were advised to understand the real meaning of the environmental-friendly claims and certification listed on the textile products by cross-checking their certifying information in appropriate website. They were also reminded that buying fewer clothes and textile products, extending their life-cycle by mending the clothes and donating the unwanted clothes to charity will also help support sustainable consumption.

## Where Have All the Tested Products Gone?

The products used for testing by the Council were put to further use with a number of items donated to environmental protection organisations, charity groups and non-profit organisations for further consumption and recycling. During the year, a total of 1,887 items were sent to 10 recipient organisations, including electrical appliances, household consumables, health products as well as food and beverages.

The recipient organisations were: ALBA Integrated Waste Solutions (Hong Kong) Ltd., North Point Alliance Church, Evangelical Free Church of China Tung Fook Church, Green Environmental Kitchen Residue Recycle Ltd., Helping Hand Po Lam Jockey Club Housing for the Elderly, Hong Chi Association, H.K.S.K.H. Kowloon City Children and Youth Integrated Service Centre, Kowloon City Baptist Church Neighbourhood Elderly Centre, The Salvation Army and Sham Shui Po Community Association.

## 嬰幼兒用紡織品及環保標籤

本會檢視了36款嬰幼兒用紡織品樣本的環保認證標誌，包括衣物、口水肩、帽子、包被/被子、毛巾/抹巾、枕墊、安撫巾和玩具。

全球有機紡織品標準認證 (GOTS) 和生態紡織品環保標準100 (簡稱OEKO-TEX標準100) 是最常見於紡織品的認證標識。GOTS除了成品中對有機纖維含量有最低要求外，這套自願性認證系統對於紡織品整個生產過程，包括原料種植、紡織品加工、包裝物料、耗用的能源和水資源，以及化學物質的排放都有要求。

而OEKO-TEX標準100主要關注紡織品中有害化學物質的含量/釋放量。在這套標準下，擬供嬰幼兒使用及與皮膚有貼身接觸的紡織品，需要符合較嚴謹的要求。

本會檢視的36款樣本中，有14款標示GOTS標誌或表明符合相關認證標準。本會以樣本上的包裝資料、宣傳資訊或由供應商提供的補充資料，在GOTS系統官方網頁搜查各樣本的認證紀錄。12款的資料可在網頁查閱得到：當中6款為認證紡織品；4款取得布料/面料、原纖維和紗綿認證；2款的認證已經逾期；餘下2款則未能在相關網頁中找到其認證資料。

另一方面，有10款標示符合OEKO-TEX標準100要求。當中9款樣本的認證資料可在該系統官方網頁查獲：其中7款獲紡織品成品第一級別（供嬰兒和三歲幼兒使用的紡織品）認證；其餘2款獲布料/面料認證。

消費者在決定購買前應於相關網頁查閱在產品上的環保聲稱和認證，瞭解其認證資料的真確意思。消費者亦應該按實際需要購買產品，可考慮修補產品以延長使用期，及將不需要的嬰幼兒衣物捐贈予慈善機構，以支持可持續消費。

## 產品測試完畢後的方向

部分經消委會測試的產品會捐贈予環保組織、慈善團體及非牟利機構使用及回收。本年度，本會共轉贈1,887件物品至10間機構，當中包括電器、家庭消耗品、健康產品及食品飲料等。

相關受惠機構為：歐綠保綜合環保(香港)有限公司、基督教宣道會北角恩樂堂、中國基督教播道會同福堂、綠色環保廚餘回收有限公司、伸手助人協會寶林賽馬會老人之家、匡智會、香港聖公會九龍城青少年綜合服務中心、九龍城浸信會長者鄰舍中心、救世軍及深水埗社區協會。