

# UOP DACSIV™ CAPTURE

THE PREMIER ZEOLITE-BASED ADSORBENT TECHNOLOGY FOR CO<sub>2</sub> DIRECT AIR CAPTURE

UOP's superior DACSIV™ Capture zeolite solution delivers exceptional performance for CO<sub>2</sub> capture applications. Available at scale today to help you on your journey to carbon neutrality.

Increasing public awareness and the mounting pressure to address the imminent climate crisis are compelling both industries and governments to adopt more stringent CO<sub>2</sub> emissions targets. Achieving net zero carbon emissions will require a range of technological solutions. Nevertheless, CO<sub>2</sub> Direct Air Capture (DAC) stands out as an immediately available and viable solution capable of addressing both future & legacy CO<sub>2</sub> emissions.

## DESCRIPTION & APPLICATION

Honeywell UOP's DACSIV™ Capture is the premier zeolite-based adsorbent solution for CO<sub>2</sub> DAC, offering exceptional selectivity and an extended lifespan. The superior performance results in achieving higher yields and lower regeneration and lifetime operation costs. DACSIV™ Capture adsorbent technology is specifically developed for selectively removing CO<sub>2</sub> from ambient air with higher CO<sub>2</sub> capacity compared to existing market alternatives.

## TECHNICAL DETAILS

| PARAMETER                                                   | 8X12 BEADS | 6X8 BEADS | 4X8 BEADS |
|-------------------------------------------------------------|------------|-----------|-----------|
| Nominal pore diameter (Å)                                   | 8          | 8         | 8         |
| Nominal particle size diameter (mm)                         | 2.0        | 3.0       | 4.0       |
| Typical Bulk density (lb/ft³)                               | 41         | 41        | 41        |
| (kg/m³)                                                     | 660        | 660       | 660       |
| Crush strength (lb <sub>p</sub> )                           | 6          | 12        | 21        |
| (N)                                                         | 26.7       | 53.4      | 93.4      |
| Equilibrium CO <sub>2</sub> capacity (wt.%) <sup>(1)</sup>  | 6.8        | 6.8       | 6.8       |
| Equilibrium H <sub>2</sub> O capacity (wt.%) <sup>(2)</sup> | 27         | 27        | 27        |
| Water content as shipped (Wt%)                              | <1.0       | <1.0      | <1.0      |

<sup>(1)</sup>Measured at 2 mm Hg & 25 °C

<sup>(2)</sup>Measured at 17.5 mm Hg & 25 °C



## REGENERATION

DACSIV™ Capture adsorbent can be regenerated for reuse by purging at elevated temperatures.

## SAFETY AND HANDLING

See the UOP brochure entitled "Precautions and Safe Practices for Handling Molecular Sieves in Process Units" or contact your UOP representative.

## SHIPPING INFORMATION

DACSIV™ Capture adsorbent is shipped in 55-gallon & 135 kg steel drums.

## For more information

For more information, contact your local UOP representative or our Des Plaines sales office: e-mail: [info@uop.com](mailto:info@uop.com)  
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