



## DABS

## Oil Absorption Basic System

### KEY FEATURES

Compact design with small table footprint

Fits standard mixing chambers, while safety cage allows for easy access to chamber for filling and cleaning

Selectable variable rotor speed and oil debit rate

Connects to standard PC via serial port RS232

Supports several burette models

Pt-100 sensor for monitoring chamber temperature

Table model dimensions:  
400 x 500 x 700 mm (W x D x H)

Weight: 60 kg

STATE-OF-THE-ART OIL ABSORPTION DATA SYSTEM COMPLIANT TO ASTM D2414 OAN AND D3493 COAN FOR CARBON BLACK, ASTM D6854 FOR SILICA, AS WELL AS ISO 4656

DABS is an oil absorption system to determine structure of carbon black and silica, as well as oil absorption of other powder material, also known as DPB absorption, DBP number or DOP number.

The data treatment for recording of a full mixing curve was initially developed as of 1996 by HITEC Luxembourg and is since then constantly further extended to satisfy increasing performance requirements. The curve fitting by a polynomial of 3rd order was a result of this initial development and has been introduced as "procedure B" in ASTM D2414.

A dedicated data acquisition system only, to connect to old model absorptometers is at the base of the full model absorptometer DABS. It can still be acquired as DADS-TERM to enhance such classic absorptometers.



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# SYSTEM CHARACTERISTICS: OIL ABSORPTION BASIC SYSTEM - DABS

## MEASURING CAPABILITIES

Carbon black OAN and COAN

Silica oil absorption

Oil absorption of multiple other powder material

Full recording of mixing torque vs. oil debit

Applies normalization to raw data, based on reference material and its target values (e.g. carbon black SRBs)

Torque up to 15 Nm (option for 20 Nm)

Variable motor speed

Variable burette rate

## MAINTENANCE

Torque calibration

Burette debit control

ASTM procedures (e.g. chamber pre-polish)

## MEASURING MODES

ASTM D2414 Standard Test Method for Carbon Black Oil Absorption Number (OAN)

ASTM D3493 Standard Test Method for Carbon Black - Compressed Oil Absorption Number (COAN)  
⚠ Requires separate compression press

## SAFETY & SECURITY

Safety cage around mixing chamber Opens 180 degrees - easy filling of samples and comfortable cleaning at end of test

Certifications CE marking  
SGS-USTC certified

## DIMENSIONS & SUPPLY

Power supply 230/115 VAC, 50/60 Hz, 400 VA

Table model 400 x 500 x 700 mm (W x D x H)

Weight 60 kg

## INTERFACES

Serial port (RS232) to standard PC serving as operator interface (software included with the instrument)

Pt-100 temperature sensor input

Burette control connector

## SOFTWARE

Menu guided application (HITEC Applications)

Environment Microsoft Windows®  
9x/ME/NT4/2000/XP/W7

## Features

Curve smoothing by fit of polynomial of 3rd order in significant part of mixing curve

Calculates oil absorption as per fixed torque level and as per % level of maximum torque (70% being standard)

Full management of TLS and Normalization as per ASTM D2414:

separate data sets for hard and soft grades (tread and carcass)  
separate data sets for COAN

Test sequence management allows for remote installation of control PC

Extended data treatment

Integrated electronic manual

Extended maintenance support

Extensive logging capabilities (all activities in log files)

Up to 4 testers per PC (IPHT and or DADS / DABS)

Multilingual (English, German, French)

Retrieve and visualization of previous data

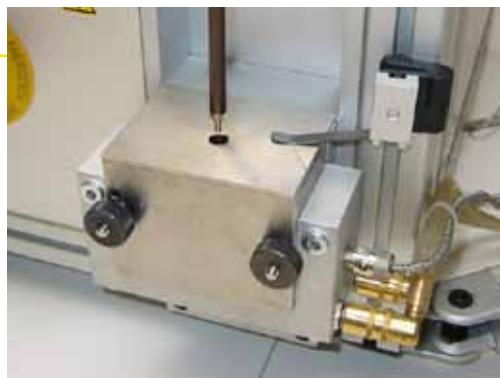
Can be installed for retrieve only on any PC having access to the files

## OPTIONS

Mixing Chamber Cooling Block Maintain chamber on a stabilized temperature

Temperature Sensor Monitor mixing bowl temperature

Extension Funnel For testing of fluffy material



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