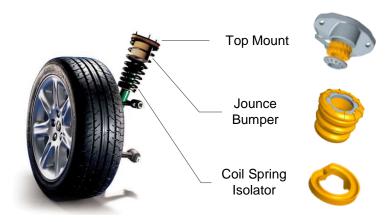


## **Cellasto® – microcellular polyurethanes for NVH solutions**

#### **Automotive**

Cellasto<sup>®</sup> Division is the global market leader for spring aids and vibration damping components that counter noise, vibration and harshness (NVH)



>85%

of all car manufacturers worldwide use Cellasto® components

#### **Industries**

In addition, Cellasto® offers customized NVH solutions for a broad range of applications and industries



Overrun-Buffers & NVH-Solutions for Elevators





Anti-Vibration & Noise-Reduction in Domestic Appliances



Bumpers & Seals for Special Vehicles

>75%

of all front-loader washing machines worldwide use Cellasto<sup>®</sup> friction dampers

#### **Independent Aftermarket**

Broad Cellasto® program for Independent Aftermarket with OEM quality and BASF owned tools









Damping Kits

Jounce Bumpers

**Dust Bellows** 

>600

different jounce bumpers from most automotive OEMs



## Cellasto® Industries: our NVH solutions and service package

#### Cellasto® products

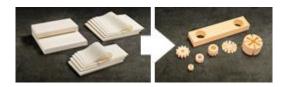
- spring and shock absorber products that can handle high loads in both static and dynamic situations
- can replace rubber and steel elements as shock absorbers, springs and antivibration elements
- all imaginable geometries due to versatile manufacturing to adapt your constructive requirements

#### **Converted Parts**

 made from blocks, tubes or cylinders by slicing, waterjet cutting, grinding or die-cutting

#### **Molded Parts**

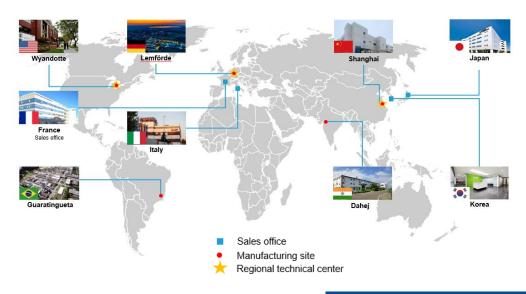
made with tools on automated mold lines





### Cellasto® engineering

- mechanical engineer experts in a wide range of customized NVH solutions for many applications and industries
- global network with local contacts and engineering support for your project developments
- can provide you quick custom-made samples to check the advantages of Cellasto<sup>®</sup>





## Cellasto® Industries: incredible versatility and performance

### **Cellasto® products ...**

**Spring Elements** 



**Friction Dampers** 



**Specially Engineered** 



**Tolerance Compensation** 



**Bump Stops / End Stops** 



Semi-Finished

**NVH Elements** 

**Seals** 



... for many applications and industries

**Elevator** 



**Home Appliance** 



**Power Tools** 



**Heavy Equipment** 



**Light Vehicles** 



**Paper & Packaging** 



**Furniture** 



**Sports & Leisure** 



And more...



### Cellasto® reduces NVH for heavy equipment

Agricultural, harbor and mining equipment



## Why front runners choose Cellasto<sup>®</sup> for heavy equipment operations

BASF is your experienced partner in the heavy equipment industry, providing custom-designed and safety-certified components crafted with the outstanding versatility of Cellasto<sup>®</sup>. Count on BASF's team of global experts to help you engineer designs that meet your specifications for NVH, safety and performance.



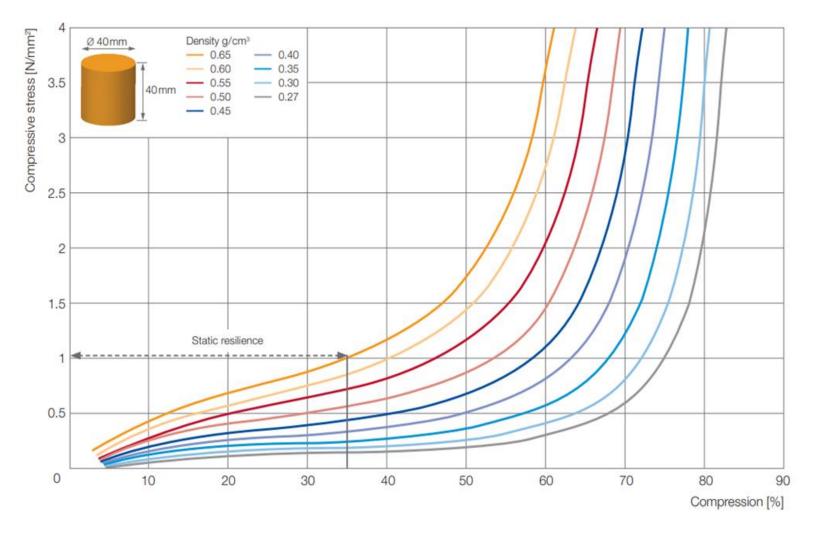








# Cellasto® excels in long deflection ways depending on the density of 270 to 650g/l



#### **Progressive characteristic curve:**

- In contrast to metallic springs, Cellasto<sup>®</sup> components offer a non-linear compressive behavior that increases in compressive stress as it is further compressed.
- This progressivity can be used in spring damping systems as a comfortable end stop at larger deflections.



# Cellasto® is characterized by outstanding properties in vibration dynamics



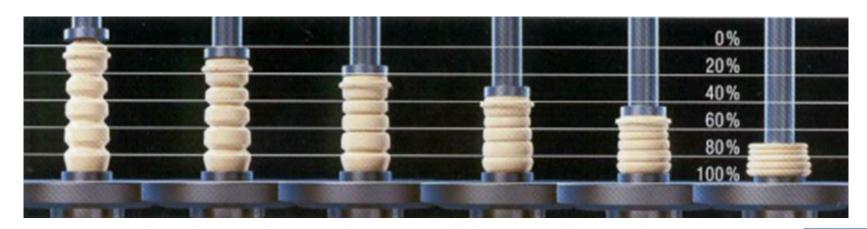


- Cellasto® offers low dynamic stiffening up into high frequencies for vibration technologies.
- A further characteristic feature is an amplitude-selective damping. This means low damping rates at high frequencies or small amplitudes (acoustic isolation) and increased damping at large amplitudes (energy reduction).

## Cellasto® is characterized by low lateral extension due to volume compressibility



Cellasto® scores with a high volume compressibility, a benefit for many installation scenarios. Due to the cellularity of the material, there is only very slight transverse expansion under load.





## Cellasto® bears high load capacity: statically up to 1 N/mm² and dynamically up to 4 N/mm²



- High load capacity is quite compatible with small component sizes.
- The static permanent load is achieved at approx. 35-40% deflection of the original height, according to compressive stresses that depend on the density of our Cellasto® components.



## Cellasto® is highlighted by its extremely low compression set



#### **Trailer Suspension**

- An extremely low compression set after static as well as dynamic load is verifiable.
- Even after years of usage it can be neglected for most applications.
- A high durability of Cellasto® components convinces in many tailor made solutions.



### Cellasto® stands for abrasion resistance

- An exceptionally good abrasion resistance can be highlighted, so Cellasto® is also applicable in protective sealings for sensitive metal surfaces.
- Environmental influences such as dirt and dust have hardly any effect on Cellasto<sup>®</sup> components.





### We are looking forward to your message!

Visit our website at <a href="www.cellasto.com">www.cellasto.com</a> or contact us at cellasto@basf.com

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