



# PACKAGING INFORMATION AND MECHANICAL TESTING CENTRE



**CIMTO**

IMADOS established (Institute of Handling, Transport, Packaging and Storage Systems) **1971**

**1991** CIMTO, s.p. established (Packing Information and Mechanical Testing Centre)

CIMTO becomes a subsidiary of CDV, v.v.i. (Transport Research Centre) **2015**

**2015** Transformation of state enterprise to private company CIMTO Inc.

Testing laboratory moved to the more suitable facilities in Tišnov near Brno **2018**

**2018** Certification department moved to new office space in Prague 7 - Holešovice



Our customers are from more than  
**25** countries of the world



We have more than **45** years of practical  
experience in testing of packaging



We simulate over  
**60** transport loads a year



We are members of **8** European and  
international organizations closely related



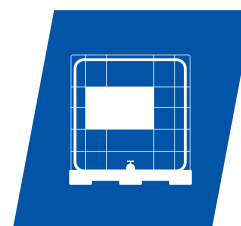
We perform more than  
**350** packaging tests a year



The Certification Department issues more than  
**120** Certificates and UN Permits a year

# ABOUT US

TESTING LABORATORY No. 1075 is accredited by ČIA (Czech Accreditation Institute) according to EN ISO / IEC 17025 for testing the packaging and IBC containers, in particular for dangerous goods.



Certification of transport packaging for dangerous goods

Certification of common goods packaging

Simulation of transportation loads

Certification of child resistant packaging

Inspections and testing of IBC's

Training activity in the area of transport packaging

Medical packaging

## CIMTO IS AUTHORIZED BY THE MINISTRY OF TRANSPORT OF THE CZECH REPUBLIC TO PERFORM THE FOLLOWING ACTIVITIES:

- Testing of construction types of packing and packaging, IBCs and large packaging
- Assignment of UN codes on approved construction types of packaging
- Manufacturing inspections of construction types of packaging
- Inspections of IBCs in determined periods according to applicable technical standards and in accordance with international transportation regulations

ISO 17025  
AKREDITOVANÁ LABORATOŘ



**MORE THAN 45 YEARS OF EXPERIENCE**

# WE TEST ACCORDING TO INTERNATIONAL TRANSPORTATION REGULATIONS:

- EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD **(ADR)**
- REGULATION CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY RAIL **(RID)**
- INTERNATIONAL MARITIME DANGEROUS GOODS CODE **(IMDG CODE)**
- INTERNATIONAL AIR TRANSPORT ASSOCIATION - DANGEROUS GOODS REGULATIONS **(IATA DGR)**
- RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS **(UN) (RTDG)**





# PACKAGING CERTIFICATION



- Based on the technical information that the customer enters into the **request for certification** and **mandatory declaration**, the certification department issues the order for laboratory testing;
- The customer shall pre-consulted the information given in the entry documents with a professional **safety advisor**, who shall classify the packed substance in accordance with the regulations, determine the packaging group and also determine which kind of transport is acceptable for the packed product;
- The **professional safety advisor** shall be a holder of the professional competence certificate. This certificate is issued by a competent authority or organization that is authorized for this purpose (Ministry of Transport of the Czech Republic);
- On the basis of successfully tested packaging construction type, the **certification department issues**:

**Type Certificate**

**UN Permit**

**Certification Result Report**

- We provide **production inspection** at our customers.



4C1/X59/S/\*\*  
CZ/CIM 10218/KVS



# PACKAGING CERTIFICATION PROCESS



Communication  
by phone or email



Request for certification  
application + ISO 9001



Contract for work  
or binding order



Test samples delivery  
to laboratory



Testing and Test  
Report issuing



Issuing of Certification Result Report,  
Type Certificate and UN Permit

# PACKAGING TESTS

PACKAGING										
		drums	jerricans	boxes	bags	composite packaging	light gauge metal packaging	IBC	FIBC	large packaging
TESTS ACCORDING TO INTERNATIONAL TRANSPORTATION REGULATIONS	conditioning	○	○	○	○	○		○		○
	free fall	○	○	○	○	○	○	○	○	○
	stacking / compression	○	○	○		○	○	○	○	○
	leakage	○	○			○	○	○		
	hydraulic pressure	○	○			○	○	○		
	lifting from the bottom							○		○
	lifting from the top							○	○	○
	tearing								○	
	uprighting								○	
	rollover fall								○	
	vibration							○		
	absorptivity according to			○		○		○		○
	water spray				○					
	chemical compatibility	○	○			○		○		
	Tests for common loads *		○	○	○	○	○	○	○	○
* According to type of packaging - horizontal impact test, vibrations, handles strength, combined test, free fall from unilateral lift, fork handling.										











# SAFETY PACKAGING



**CHILD RESISTANT PACKAGING** - are such containers which consist of a container and a respective closure (in the meaning of a finished product), whose opening or access to their content is difficult for children, but on the contrary, for adults the content is commonly accessible.

**WE TEST THESE PACKAGING ACCORDING TO VALID LEGISLATION AND ACCORDING TO TECHNICAL STANDARDS:**

- EN ISO 8317** Child-resistant packaging - Requirements and testing procedures for reclosable packages
- EN 862** Packaging - Child-resistant packaging - Requirements and testing procedures for non-reclosable packages for non- pharmaceutical products
- EN 14375** Child-resistant non-reclosable packaging for pharmaceutical products - Requirements and testing

**MEDICINAL WASTE PACKAGING** - waste is generated in health care facilities and can endanger public health by its nature as well as the environment and cause disease or injury. The packaging of poorly secured medical waste can endanger not only patients, but also the staff that collect, transport and dispose of waste.

We test and certify the **medicinal waste packaging** according to **EN ISO 23907** Sharps injury protection - Requirements and test methods - Sharps containers.





# IBC – INSPECTION ACTIVITIES



Intermediate bulk containers (IBC's), the use of which is expressly authorized for the carriage of certain dangerous goods, according to the packing instructions, are intended for packing of bulk and liquid substances.

**CIMTO HAS THE AUTHORIZATION FROM THE MINISTRY OF TRANSPORT OF THE CZECH REPUBLIC FOR IBC'S INSPECTIONS WITHIN THE DEADLINES SET, ACCORDING TO VALID TECHNICAL STANDARDS AND FULLY IN ACCORDANCE WITH INTERNATIONAL TRANSPORTATION REGULATIONS.**

- WE PROVIDE IBC'S INSPECTIONS: **directly at the customer**  
**in our laboratory**
- We are able to ensure inspections up to **50 containers per day**
- **Once every 2.5 years**, it is necessary to inspect the IBC or carry out the leakage test in accordance to international transportation regulations.





# SIMULATION OF TRANSPORTATION LOADS

FRAGILE  
HANDLE WITH CARE  
DO NOT DROP!



- Transportation loads that affect the packages and their contents during distribution in the transportation chains can be mechanically simulated. Simulation of transport conditions helps to select the appropriate packaging, and these tests verify the properties and behaviour of the packages in the expected transportation conditions. The high variability of the test equipment and many years of experience allow us to carry out a number of tests also beyond the common transportation loading tests. We carry out a number of other standardized tests, such as pallet load tests, flexible bag tests (FIBC), and test methods based on specific customer requirements (e.g. in accordance to EN and ISO standards, ASTM, ISTA, etc.)

## TRANSPORTATION LOADS:

- **Handling loads**, simulating risks of damage during any handling of the packaging;
- **Vibrations (vertical)**, arising during various types of transport;
- **Drop tests**, with the possibility of measuring the magnitude of impact overloads;
- **Storage risks**, verification of the packaging resistance against compressive forces acting in general when stacking the packaging in warehouses or cargo spaces of vehicles;
- **Horizontal forces and impacts**, arising from rapid changes in speeds and directions during transportation and transferred to the packaging;
- **Climatic loads**, performed at a controlled temperature range of  $-50 \div 70$  °C and a relative humidity of  $10 \div 95\%$ , covering all possible transportation environments that may occur during transportation.



# CORRUGATED FIBREBOARDS

BASED ON THE CUSTOMER'S REQUEST, WE PERFORM VERIFICATION OF SOME PARAMETERS OF CORRUGATED CARDBOARD:

- **Box compression test (BCT)** – according to FEFCO 50
- **Water absorptiveness - Cobb** method – test according to EN ISO 535
- **Determination of edgewise crush resistance (ECT)** – test according to EN ISO 3037
- **Determination of grammage** – test according to EN ISO 536
- **Determination of bursting strength (BST)** – test according to EN ISO 2759
- **Determination of grammage of the component** with the determination of the grammage of the component papers after separation according to ČSN 50 0357; ČSN 50 0470; ISO 3039

The obtained results can be compared with **DIN** standards or with a predetermined **TECHNICAL SPECIFICATION** (internal regulation - company standards) on customer's request.

Result of corrugated fibreboards parameters verification is a **DECLARATION** or **TEST REPORT**



# TRAINING ACTIVITIES

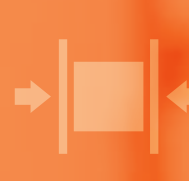
## WE PROVIDE TRAINING IN THE AREA OF:

- DANGEROUS GOODS PACKAGING
- MARKING OF DANGEROUS GOODS PACKAGING
- PROPERTIES OF CARDBOARDS
- TRANSPORTATION LOADS
- CHILD RESISTANT PACKAGING



# PACKAGING AND STANDARDS

- Within the framework of international cooperation in the field of standardization, we provide and collect comments on drafted proposals and revisions of technical standards and prepare summary opinions on behalf of the Czech Republic, which are passed through the National Standardization Authority on to European and International secretariats.
- CIMTO, under a contract with **ČAS** (Czech Agency for Standardization), provides the Technical Standardization Centre (CTN) for a range of technical committees.
- Within the framework of international cooperation, CIMTO regularly participates in meetings of European and International Committees **CEN / TC 261** and **ISO / TC 122 "Packaging"**. In both committees, CIMTO is a member of the WG for dangerous goods and for child-resistant packaging.



# REFERENCE

Engineers from CIMTO willingly advised me several times and helped me with things that were not directly related to our UN codes.

*V. Válková - DS Smith Packaging Czech Republic s.r.o.*



„Our business contacts with testing laboratory CIMTO dates from 1995. We highly appreciate this cooperation, because it has always been and is based on a high professional level, whether it is the access of individual employees or the services provided within the certification and other service trades.”

*M. Beneš - JUTA, a.s.*



„With CIMTO we have a very good mutual cooperation with a professional approach.”

*V. Lutovská - TART, s.r.o.*



„I've been working with some people from CIMTO for many years. We've always found common speech and common solutions.”

*Ing. J. Krbálek - Model Obaly, a.s.*



“Cooperation with CIMTO is always on a professional level, employees are willing and able to meet and consult all at any time.”

*Zdeněk Jurček - Greif Czech Republic a.s.*



PACKAGING SUCCESS TOGETHER™

“There can't be anything but praise, I was always fully satisfied with demanded services and also with consultancy. I can contact CIMTO anytime and my requests are promptly meet.”

*R. Válková - Smurfit Kappa Czech s.r.o.,  
závod Žebrák*



Request  
for certification



Certificate  
of Accreditation



About us



Contact us





**CIMTO, s.r.o.**

**Company Headquarters:**

Líšeňská 2657/33a, 636 00 Brno

**TESTING LABORATORY**

Olbrachtova 1740, 666 03 Tišnov

Telefon: +420 776 189 936

**CERTIFICATION DEPARTMENT**

Jankovcova 938/18a, 170 00 Praha 7

Telefon: +420 602 354 748

e-mail: [info@cimto.cz](mailto:info@cimto.cz)

[www.cimto.cz](http://www.cimto.cz)

