

New Regulations and Standards To drastically improve load **stability** and cargo **securing**: A Real Case



Ángel David Hernández
© VALUEING Group

5th International EUMOS Conference – Vienna 2017



Índice

VALUEING

1. Valueing Introduction
2. Moment of Truth along Supply Chain
3. The Power of Association & Standards for Industry: EUMOS
4. What does it mean an Stable Load?
5. Useful standards approved by Directive 2014/47/UE
6. A Real Case



Our Company

VALUEING



Moment of Truth

VALUEING



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Moment of Truth

VALUEING



Walmart

Alcampo



SPAR



the fresh food people
Woolworths

TESCO

jumbo

COOP



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Moment of Truth

VALUEING



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Moment of Truth

VALUEING



Walmart

Alcampo



SPAR



the fresh food people
Woolworths

TESCO

jumbo

COOP



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Moment of Truth

VALUEING



Walmart

Alcampo



SPAR



the fresh food people
Woolworths

TESCO

jumbo

COOP



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Perfect Packaging

VALUEING

Primary, Secondary & Tertiary Packaging in perfect Harmony



Displayed on Supermarket. The Moment of Truth



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

The Power of Association & Standards For an Industry: EUMOS

VALUEING



European Safe Logistics Association



1. Is a non-profit association
2. Focussed on cargo transport safety, including packing, storage, loading and cargo securing
3. Works for the producing industry as well as the transport sector
4. Stimulate the development of new know-how, standards and test methods related to cargo transport safety
5. Cooperates with European Commission to improve Transport Safety



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

¿What is Stable?
 ¿What means Safe?
 What is Best in Class



Let's start by the Beginning: Fatalities on the Road

VALUEING



Fatalities on the Road 100,000 habitants per year

Libya	73,4
Thailand	36,2
South Africa	25,1
Malaysia	24,0
Brazil	23,4
China	18,8
Argentina	13,6
South Korea	12,0
USA	10,6
Portugal	7,8
Belgium	6,7
Australia	5,4
Japan	4,7
Germany	4,3
Spain	3,7
UK	2,9
Sweden	2,8

Source: World Health Organization
Report 2016 (UN)



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Road Worthiness Directive 2014/47/UE

Approved March the 12th, 2014

European Parliament under Plenary Session approved the New
Road Worthiness Directive.

Mandatory for UE Members after May 2018



Based on Standards:

EN 12195-1

EN 12640

EN 12642-XL

EN 12195-2

EN 12195-3

EN 12195-4

ISO 1161

ISO 1496

EN 283

EN 12641

EUMOS 40511

EUMOS 40509



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Just.... Follow the Standards

No More – No Less

VALUEING



EN 12642XL
EN 12195



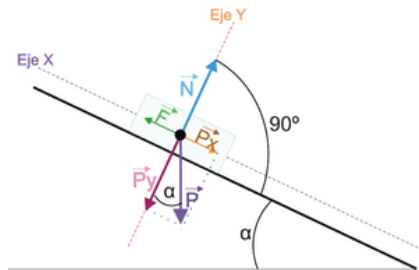
EUMOS 40509



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

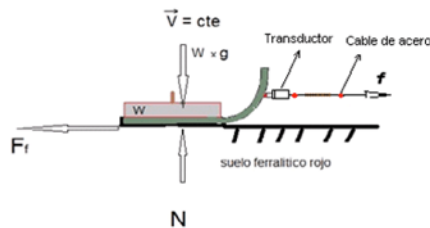
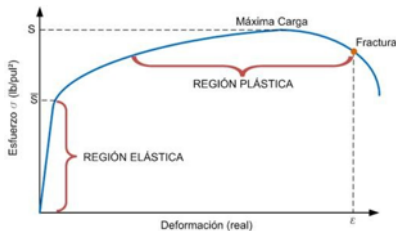
Physics is Universal (It is for Free)

VALUEING



SELF STABILITY

Mass, Gravity, COF, Deformation, Absorption of Energy, Tri-Dimensional Forces, Vibration & Acceleration are Universal



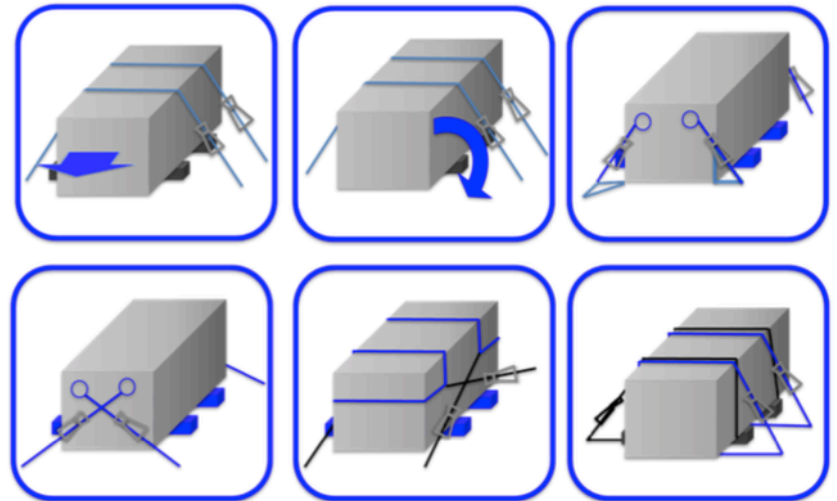
All the rest you need is Money



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

EN 12195

VALUEING



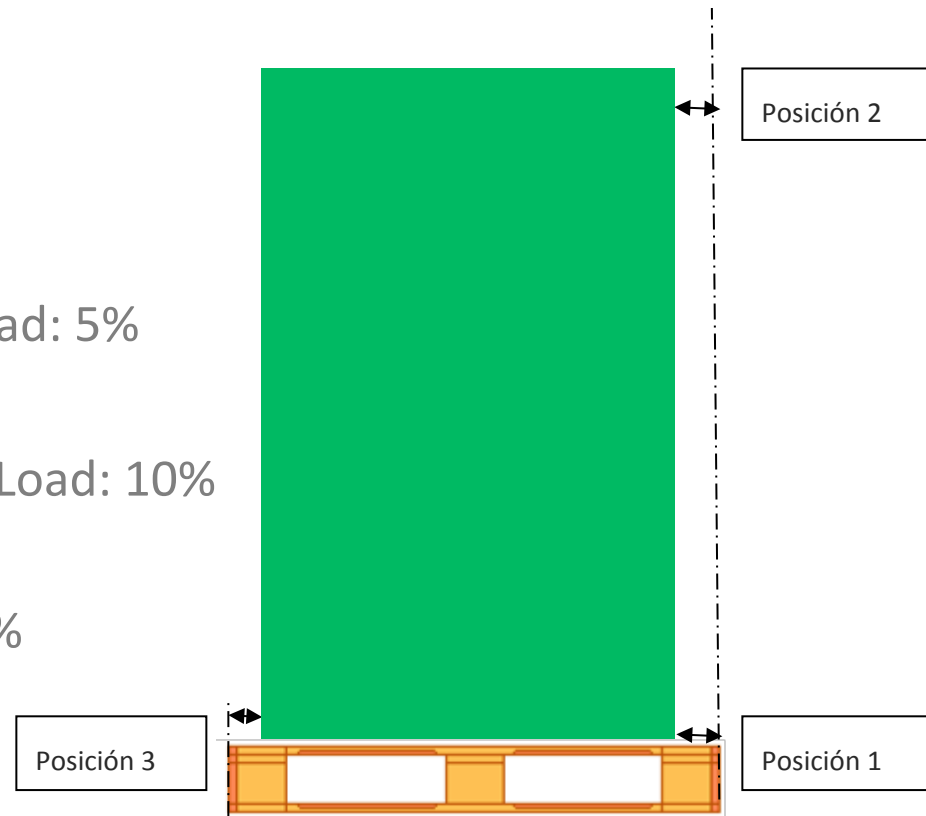
Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

EUMOS 40509

VALUEING



1. Max. Plastic Deformation of Unit Load: 5%
2. Max. Dynamic Deformation of Unit Load: 10%
3. Max. Gap of Layers during Stress: 2%
4. Product Integrity



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

EN 12642-XL

VALUEING



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

A Real Case



April 20th, 2017 Bilbao - Lisbon





April 20th, 2017 Bilbao – Lisbon
A Journey of 600 Miles

There is no Magic Wand

VALUEING



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Apply only *Best Practices*

May 3rd, 2017

VALUEING



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Best Practice

BUNDLE

1. 12-15 Deca-Newtons on SPT-300
2. COF= 0,35 (Min. 0,30)

INTERLAYERS

1. 1180x700 Rounded Radius 40 mm
2. Placement 0-1-2-3
3. 4,00 mm Thickness High Flat Crush
4. Fluting parallel to Short

Inter-Pallet Blocking

1. "HONEY COMB" 100x300
2. 1 Side Self-Adhesive
3. Placement: Centred Long Side 3-4

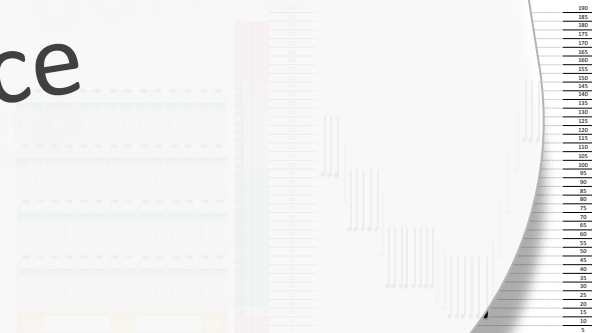
LORRY PREPARATION

1. Load 2 X 16 on EN12642-XL
2. 3 Horizontal Bars on position 0, 2 y 3
3. Rear Blocking position 2 & 3.

WRAPPING CYCLE

1. Tested Unit Load.
2. According to **EUMOS 40509**
3. Film According to Technical Spec.
4. Application 5,0 – 5,5 gr/m²
5. Residual Memory 36-40 cm

To be Displayed during
Conference



Vueltas Arriba	3
Vueltas Abajo	6
Transición Subida	4
Transición Bajada	20
TOTAL	33

Vueltas Garantizadas Subida	1
Vueltas Garantizadas Bajada	5
Total Garantizadas	6

Perimetro (m)	3,60
Gr./M ²	6
Ancho del Film	500

Consumo (Gr)	356
--------------	-----

Coste (Transparente)	0,72
----------------------	------

Coste (Blanco)	0,84
----------------	------



Precise Technical Specifications

VALUEING

VALUE²ING



ESPECIFICACIONES TÉCNICAS

Film de Altas Prestaciones XSMART FILM 13

Página 1 de 1
Edición 2
Fecha: 02/01/14

XMA 13-050-1ENO

FILM ESTIRABLE AUTOMÁTICO XSMART FILM 13 μ - 500 mm.

DEFINICION

Material

LLDPE – Co-extrusión tipo CAST. Film Estirable Altas Prestaciones.

Marca

XSMART FILM®

Responsable Técnico
Representante Legal

VALUIENG SPAIN S. L. (Spain) – VAT Nr. ES B86871621
VALUIENG SPAIN S. L. (Spain) – VAT Nr. ES B86871621

CONCEPTO	ESPECIFICACIONES				TOLERANCIA		MÉTODO
Bobina	Ancho	500	mm		± 10	mm	
	Espesor	13	μ		± 1	μ	
	Peso	17	kg.		± 3	%	
	Longitud	2680	m		± 3	%	
	Peso	1000	gr.		± 3	%	
Mandril	Ø Interno	77	mm		± 1	mm	
	Color	Transparente					
	Estiramiento a la Rotura	277,0	%		± 10	%	ASTM D882
	Fuerza de Sujeción Longitudinal	430,0	N/mm2		± 10	%	ASTM D882
	Fuerza de Sujeción Transversal	11,2	N/mm2		± 10	%	ASTM D882
Resistencia a la Perforación	Al 100%	14,9	N/mm2		± 10	%	ASTM D882
	Al 200%	7,0	N/mm2		± 10	%	ASTM D882
	Al 100%	7,6	N/mm2		± 10	%	ASTM D1709
	Al 200%	65	gr.		± 10	%	ASTM D1938
Fuerza Inicial de rasgado	Longitudinal	> 100	gr.		± 10	%	
	Transversal	> 125	gr.		± 10	%	



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

Delivery *Best Practice*

May the 8th, 2017

VALUEING



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

A Sweet Journey?

... NOT at all.



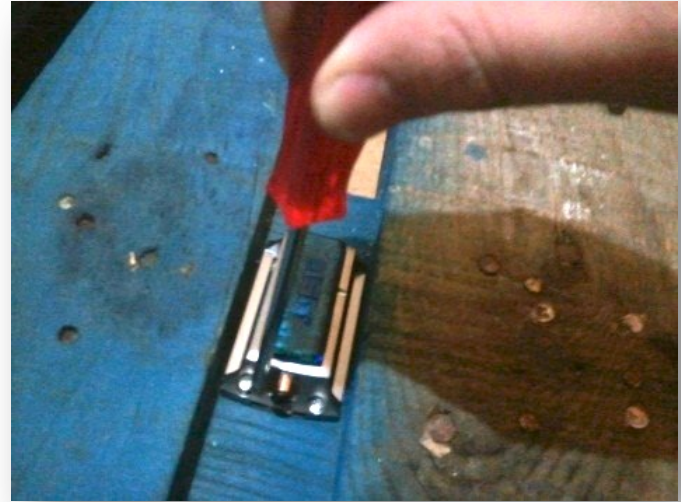


Tracking the Lorry for 106 hours 36'
for a Safe Drive
SAFE DRIVE®



Placing the Device

VALUEING



Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

GO & STOP

Tracking the Vehicle

VALUEING

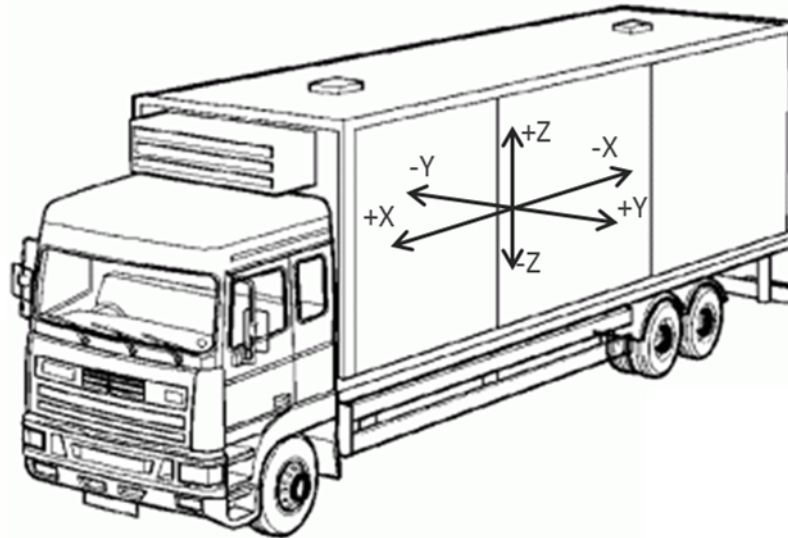
1. Activation	Wednesday	03 rd May	22H50'
2. Go	Friday	05 th May	11H20'
3. Stop	Friday	05 th May	21H30'
4. Go	Monday	08 th May	04H48'
5. End Tracking	Monday	08 th May	10H29'

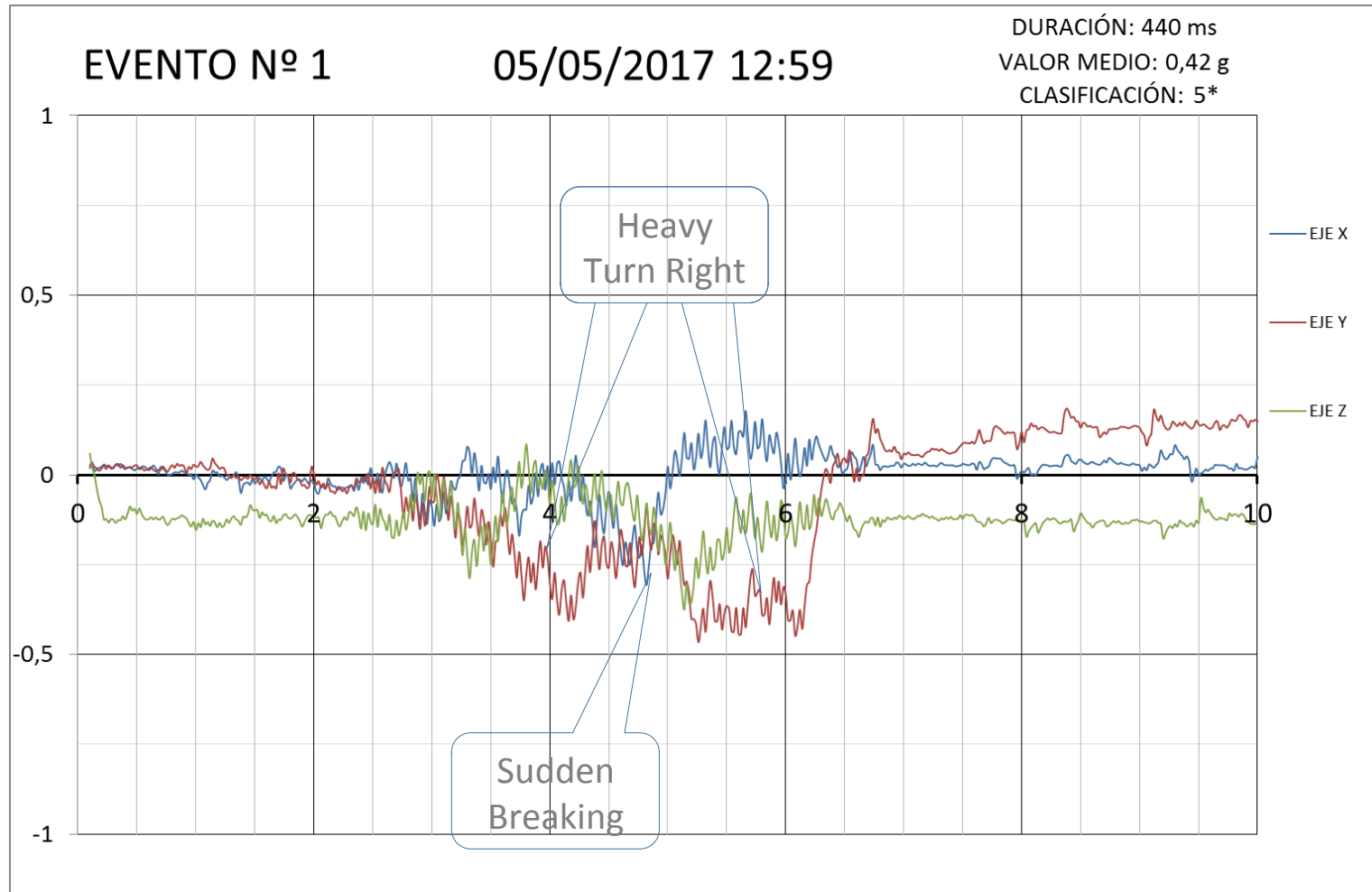


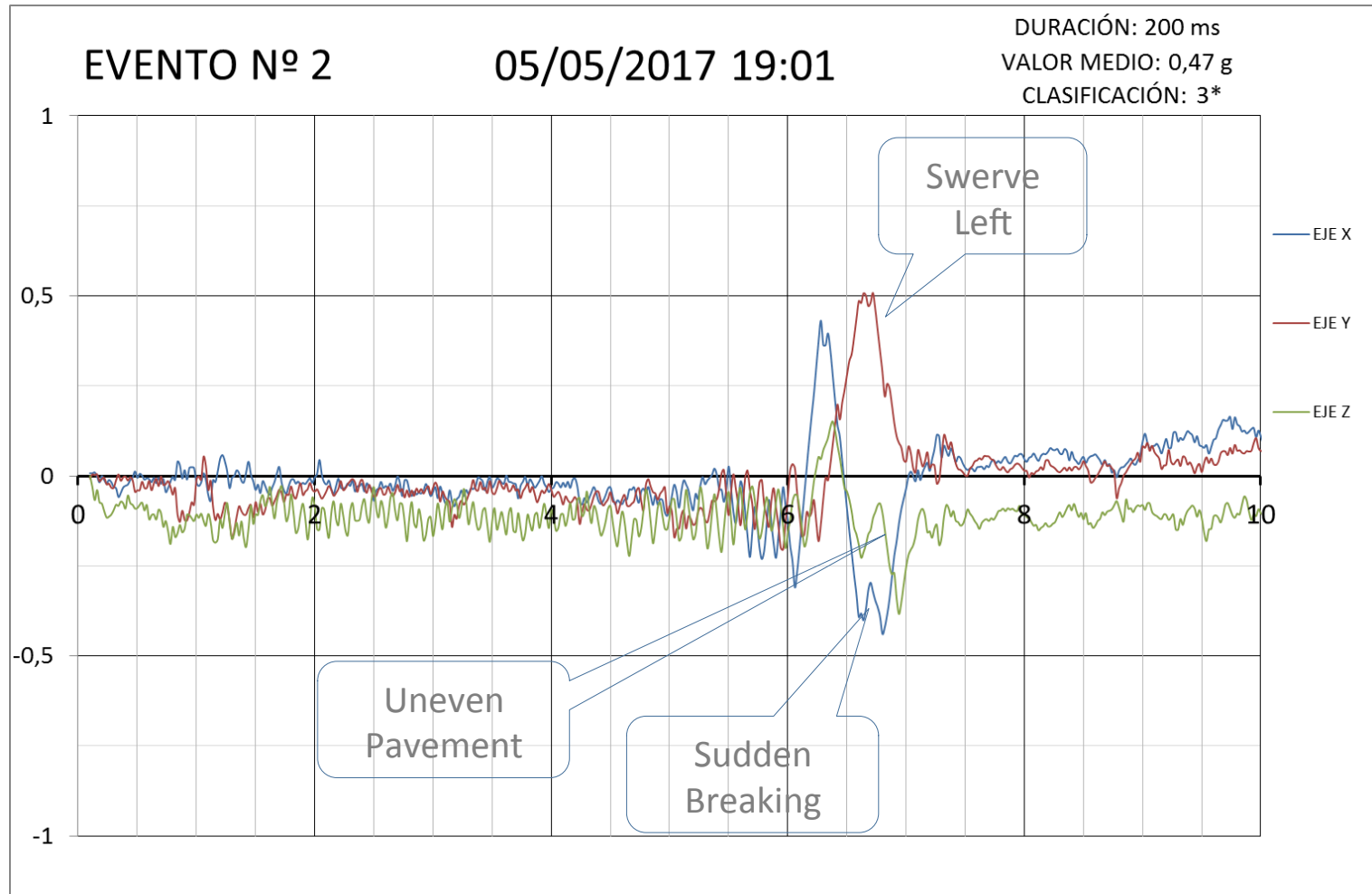
Expert in Load Stability and Cargo Securing
European Standards EN 12195 & EUMOS 40509

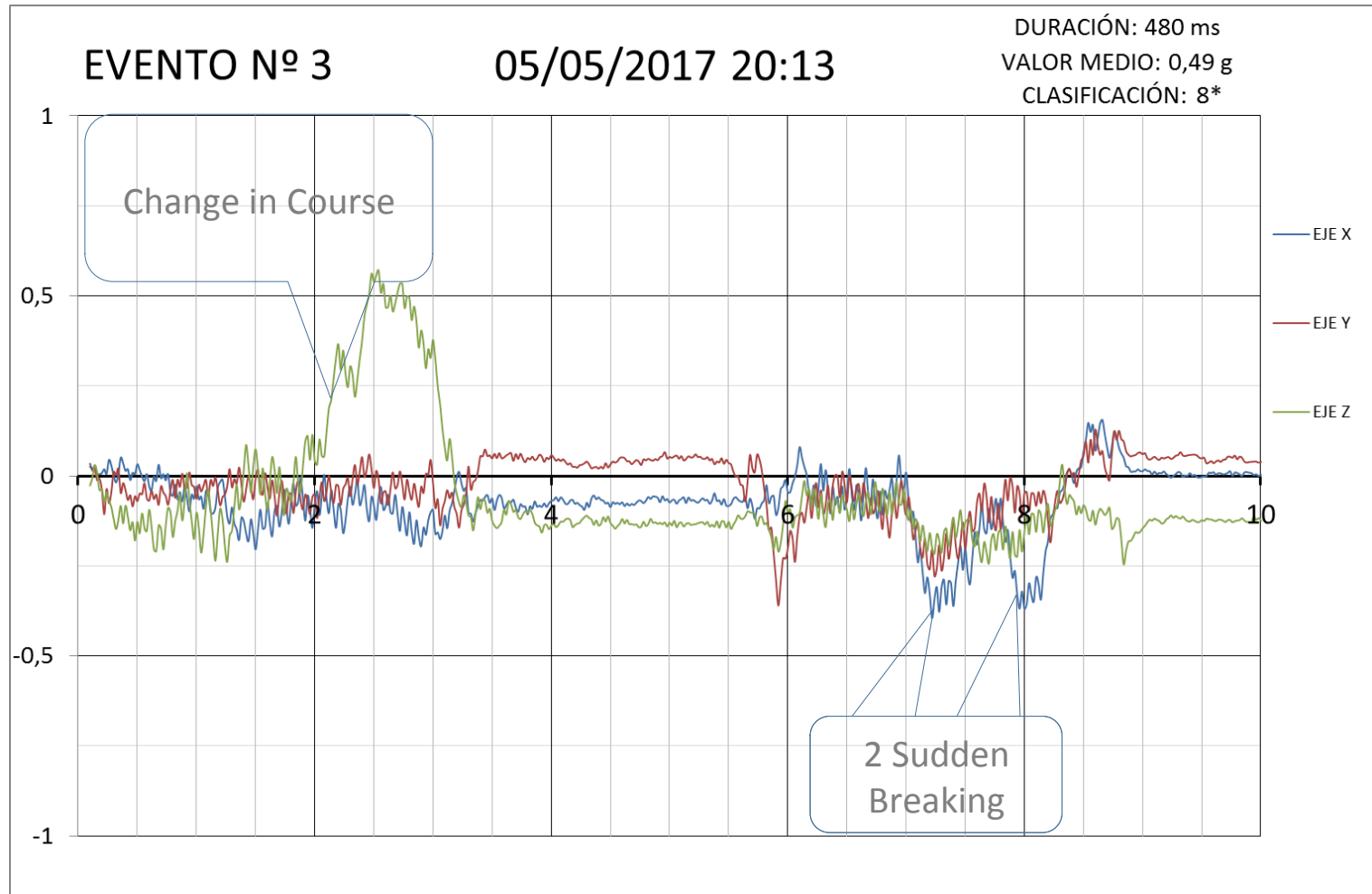
ANALYSIS OF EVENTS

EVENTO Nº	FECHA	HORA	Clasificación*	DURACIÓN (ms)	VALOR MEDIO (g)
1	05/05/2017	05/05/2017	5	440	0,42
2	05/05/2017	05/05/2017	0	20	0,43
3	05/05/2017	05/05/2017	0	0	0,00
4	05/05/2017	05/05/2017	3	280	0,43
5	05/05/2017	05/05/2017	0	40	0,42





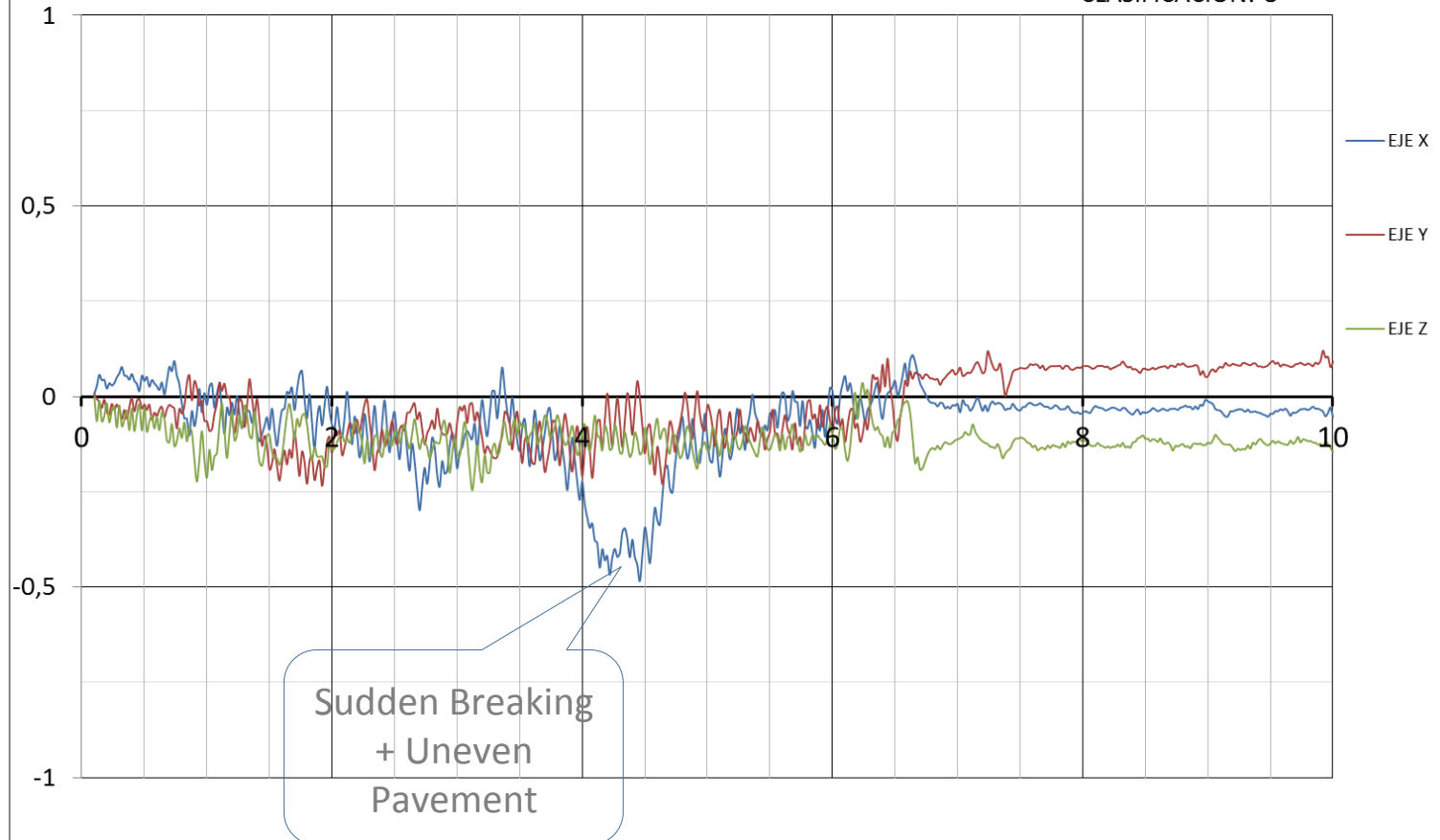


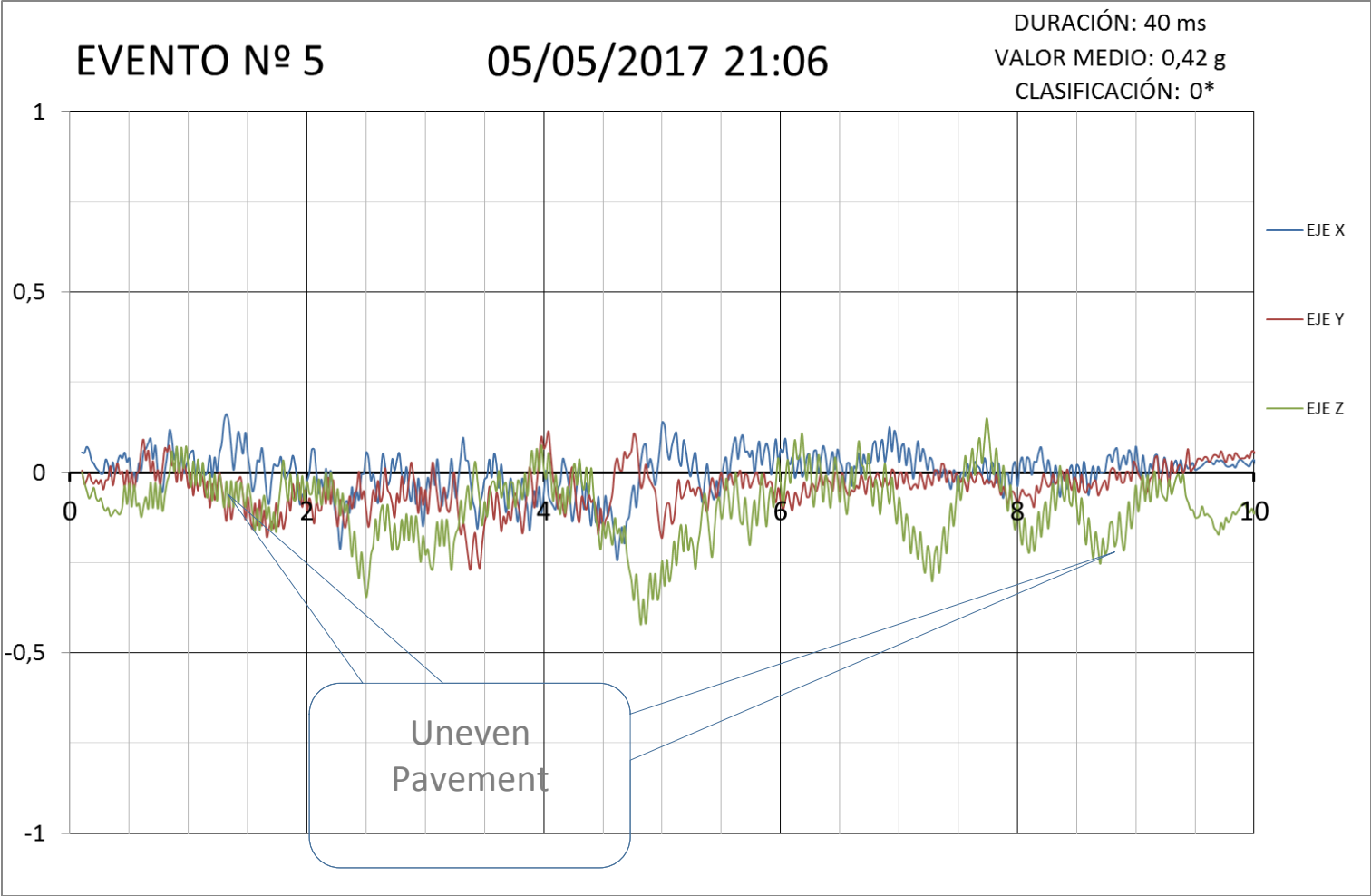


EVENTO Nº 4

05/05/2017 20:48

DURACIÓN: 280 ms
VALOR MEDIO: 0,43 g
CLASIFICACIÓN: 3*







May 8th, 2017 Bilbao - Lisbon

More Information:

www.valueing.net



Ángel David Hernández
Senior Consultant



adh@valueing.net
CORPORATE

Juan Guillermo Sagrado
Customer Care



jgs@valueing.net
IBERIA

Antonio M. Lopes
Senior Consultant



asl@valueing.net
CORPORATE

