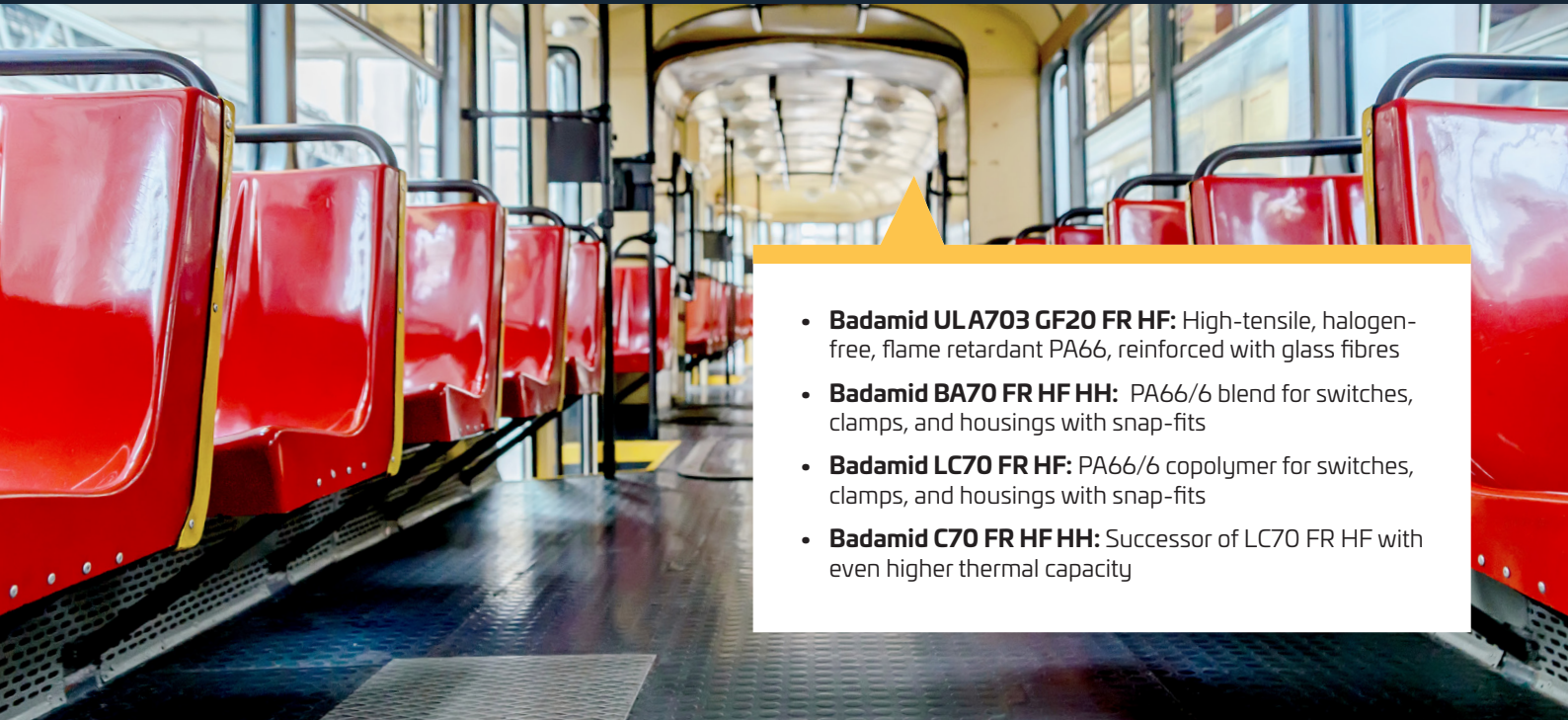


## BADA COMPOUNDS FOR RAILWAY APPLICATIONS



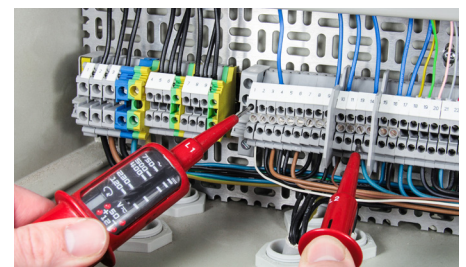
- **Badamid ULA703 GF20 FR HF:** High-tensile, halogen-free, flame retardant PA66, reinforced with glass fibres
- **Badamid BA70 FR HF HH:** PA66/6 blend for switches, clamps, and housings with snap-fits
- **Badamid LC70 FR HF:** PA66/6 copolymer for switches, clamps, and housings with snap-fits
- **Badamid C70 FR HF HH:** Successor of LC70 FR HF with even higher thermal capacity

### CERTIFIED COMPOUNDS FOR THE EUROPEAN RAIL TRAFFIC

The importance of public transport by train, metro or tram is becoming more and more important due to continuously growing cities worldwide. As a consequence, demands on plastics for railway applications are increasing, too. Great importance is attached to maximum possible fire protection owing to the increasing number of passengers.

The harmonised standard **EN 45545-2** defines different hazard levels depending on the requirements on and hazard potential of the respective application. **Hazard level 3 (HL3)** represents the highest performance category. Supply lines and high voltage components are subject to risk phrase **R22** (indoors) and **R23** (outside). Here, the use of halogen-free, fire retardant polyamides has become mostly prevalent.

Bada AG has got a broad portfolio of reinforced and unreinforced polyamides specifically adapted for the railway sector that all fully meet the **requirements of HL3**. These materials are future-proof as they significantly fall below the required limit values even if the legislator will further tighten them.



► **OUR APPLICATION TECHNOLOGY WILL BE HAPPY TO PROVIDE CONSULTANCY. CHALLENGE US!**

# BADA COMPOUNDS FOR RAILWAY APPLICATIONS

Requirements acc. to EN 45545-2	Smoke density	Oxygen index	Toxicity
	Ds <sub>max.</sub> [-]	OI [%]	CIT <sub>NLP</sub> [-]
Limit value for HL3	< 150	> 32	< 0.75
Badamid UL A703 GF20 FR HF	fulfilled	fulfilled	fulfilled
Badamid C70 FR HF HH	fulfilled	fulfilled	fulfilled
Badamid LC70 FR HF	fulfilled	fulfilled	fulfilled
Badamid BA70 FR HF HH	fulfilled	fulfilled	fulfilled
Badamid PA12 SM-Z1 FR HF R1	fulfilled	fulfilled	fulfilled

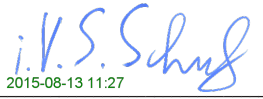
### Klassifizierungsergebnis Classification result

Das geprüfte Produkt erfüllt die folgenden Anforderungen der EN 45545-2:  
The tested product meets the following requirements of EN 45545-2:

Anforderungssatz Requirement set	Gefährdungsstufe Hazard level
R22, R23	HL1, HL2, HL3

  
13.08.2015 11:13  
Frank Volkenborn  
(Laborleiter Brandtechnologie)  
(Laboratory Manager of Fire Technology Department)



  
2015-08-13 11:27  
Sebastian Schulz  
(Sachbearbeiter Brandtechnologie)  
(Fire Technology Department, Customer Support)

**CUSTOMIZED MODIFICATIONS ARE AVAILABLE ON REQUEST.  
PLEASE CONTACT OUR APPLICATION TECHNOLOGY DEPARTMENT!**

## BADAMID®

PA6 PA66 PA66/6 PA6/6T PPA  
PA46 PA9T PA12 PA612 PA610

## BADATECH HT® HIGH-PERFORMANCE COMPOUNDS

## BADATRON® PPS

## BADAFLEX® TPE-S | TPU | TPE-E

## BADAPRENE® TPV (EPDM | PP)

## BADADUR® PBT | BLENDS

## BADALAC® ABS-SPECIALITIES | BLENDS

## BADAFORM® POM

## BADALON® PC-SPECIALITIES | BLENDS

## BADAPROP® PP-SPECIALITIES



**EMAS**  
GEPRÜFTES  
UMWELTMANAGEMENT  
DE-138-00076



**Bada AG** | Untere Strut 1 | 77815 Bühl/Baden | Germany  
Fon: +49 7223 94077-0 | Fax: +49 7223 94077-77 | info@bada.de

**Bada Hispanaplast S.A.** | Pol. Ind. Sepes | Ronda de la Industria, nº 153 | 22006 Huesca | España  
Fon: +34 974 239774 | Fax: +34 974 243969 | info@bada.com.es

www.bada.de