



Flammability Warning

Fire Hazard Data Sheet

Habasit belts and chains are made of various **PLASTICS THAT WILL BURN** if exposed to sparks, incendiaries, open flame or excessive heat. **NEVER** expose plastic belts and chains to a potential source of ignition. Flames resulting from burning plastics may emit toxic smoke and gasses as well as cause serious injuries and property damage.

Examples of some **SPECIFIC RISKS OF PLASTIC CONVEYOR BELT AND CHAIN FIRES** include:

DENSE SMOKE: Some plastics emit dense smoke when they burn. Smoke is harmful to human health and can cause choking or limit visibility hindering evacuation.

TOXIC FUMES: Some plastics emit toxic gasses and fumes when they burn, especially in an enclosed or oxygen-starved environment. Exposure to such gasses can seriously affect human health, resulting in unconsciousness or death.

DIFFICULT TO DETECT: Some plastics burn with an invisible flame making it difficult to detect. The longer a fire burns without being detected and extinguished, the more likely it is to burn out of control or cause injury and damage.

FIRE SPREAD POTENTIAL: Moving conveyor belts which transport burning objects, or which themselves are ignited, can rapidly spread a fire.

MELTING PLASTIC: Plastic belts or chains may melt, dripping burning plastic onto combustible material below the conveyor, which can spread a fire.

Examples of some **WAYS A PLASTIC BELT OR CHAIN COULD CATCH FIRE** (sources of ignition) include:

Introduction of a **BURNING PRODUCT ONTO A PLASTIC BELT** or chain. For example, the out-feed of an oven or high temperature process where conveyed material is transferred to a conveyor system fitted with plastic belts and chains.

Maintenance or other work **THROWS SPARKS AND OTHER INCENDIARIES ONTO A PLASTIC BELT OR CHAIN**. For example, welding a support structure near a conveyor system using plastic belts and chains.

FIRE PROTECTION AROUND PLASTIC CONVEYOR BELTS AND CHAINS

Fire detection, fire alarm and fire suppression systems are **STRONGLY RECOMMENDED** in areas around ovens or other high temperature processes where conveyed products may be burning or hot enough to ignite plastic belts and chains. **ALWAYS** comply with National Fire Protection Association (NFPA) standards as well as local building codes and ordinances regarding fire protection.



SPECIAL CARE MUST BE TAKEN when maintenance or other processes require **WELDING OR SIMILAR “HOT WORK”** near conveyors with plastic belts and chains. ALWAYS train welders and use observers with fire extinguishers as required by the Occupational Safety & Health Administration (OSHA) and other safety regulations and policies. Cover and protect all exposed plastic components from flames, sparks and heat.

FIRE RETARDANT PLASTICS

Certain plastics are inherently less likely to burn or are compounded with special additives to make them less likely to burn. In certain applications where the chance of a source of ignition is substantial, the use of such materials may be advisable. The decision to use any particular material in a particular application is the responsibility of the owner/operator of a conveyor system. Fire retardant plastic materials that will not sustain flames or are self extinguishing are available. Certain fire-related behavior of these materials is described below.

FIRE-RELATED CHARACTERISTICS OF VARIOUS PLASTICS

The following characteristics are based on published literature and/or observations made by Habasit engineers and are provided for general information. In some cases, belt modules or chain links made of the referenced materials were exposed to flame and the results are compiled below. These tests were made in a controlled environment and may not be indicative of what could occur in the event of a fire in an actual application due to circumstances such as: ambient temperature, induced airflow, the presence of flammable product material, the use of colorants or other additives in the plastic, or other environmental or product conditions.

Polyethylene: Burns readily; Dense black sooty smoke.

Polypropylene: Burns readily; Dense black sooty smoke.

Acetal: Burns readily; Colorless flame, almost no smoke, Formaldehyde odor.

Nylon: Difficult to ignite; sooty smoke, pungent odor.

FR™: Will not support flame; slight white smoke, slight odor. The material has similar operating characteristics to nylon, but is not FDA approved for food contact.

Kevalloy®: Will not support flame; slight white smoke, slight odor. The material has superior tensile strength and high temperature capability to nylon.