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The Science Behind MIM Safe Variocage

Engineered with Everyone's Safety in Mind

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The MIM Safe Variocage is the only safe pet travel crate on the market that has been tested in accordance with government automotive crash safety standards for front impact, rear impact and rollover crash scenarios (Safe Pet Crate Test – Sweden). Designed by automotive crash safety engineers, the Variocage considers the safety of both the pets traveling in their crates and the humans riding in the vehicle with them. Let's take a closer look at the science behind Variocage that makes it the safest automobile dog crate on the market.

1. Controlled Compression: Modern automobiles are designed with crumple zones. These crumple zones are strategically engineered to slow down the energy generated in an accident and divert it away from the passenger compartment, thus reducing the risk of injury to the vehicle's occupants. The crash tested Variocage dog crate works with these vehicle safety features. In the event of an accident, Variocage compresses in a controlled manner (like the vehicle) to keep the dog safely contained and limit the impact experienced by the dog as well as the passengers traveling in the rear seat and passenger compartment.

2. Angled to Match the Rear Seat: Safe transport of cargo, including dog crates, requires that the heaviest cargo be placed up against the vehicle's rear seat. The rear seat, which contains a steel plate, is an integral part of a vehicle's safety system. It is designed to prevent cargo from entering the passenger compartment and limit the impact experienced by rear seat passengers from moving objects. Placing heavy cargo against the rear seat prevents it from gaining additional momentum and force during sudden stops and collisions; thus le ssening the potential of injury to vehicle occupants. Variocage's slanted design enables the crate to fit snuggly and safely against the rear seat, as well as to maximize use of cargo space for the dog. In the event of an accident, Variocage spreads the impact across the largest possible surface area providing multiple pressure points against the back seat. Combined with Variocage's unique collapsed compression, this will disperse and reduce the forces it exerts on the rear seat, thus limiting the impact on vehicle occupants.

3. Safety Straps: Cargo should be safely secured in place behind a vehicle's rear seat. Variocage comes with safety straps to keep it properly and safely positioned in the cargo area against the rear seat while traveling. In the event of an accident, the straps give way at a certain force in order for the cage to function properly and compress in its controlled manner. Remember, this controlled compression is critical for both keeping the cage intact to safely contain the pet and limiting the forces exerted upon vehicle passengers to reduce the risk of injury. It is important to note that a car's cargo hooks are not strong enough to withstand the forces generated by the crate and the pet in an accident. Therefore, they should not be trusted to be the only protection for people and pets.

4. Escape Hatch: Accidents sometimes impact the ability to open windows and doors in a vehicle. Should an accident such as a rear-end collision prevent the rear cargo door from opening, it is essential to have an alternative method for freeing a pet from its crate. Variocage features an escape hatch at the rear of the cage, which can be easily opened by folding down the rear seats in the event of an emergency. This allows pets to be quickly and safely removed at the appropriate time after an accident.

5. ASTM A366 Gauge Steel: In order for a dog crate to withstand the forces generated in frontal impacts, rear impacts and rollovers, it must be both strong enough and flexible enough to properly disperse the energy and remain intact. Variocage is made of ASTM A366 steel to enable it to effectively respond to the forces generated in all three of these crash scenarios by remaining intact and limiting its impact on vehicle occupants.

Important Note

Placing a standard, solid dog crate in your cargo area will modify and disrupt a vehicle's safety mechanisms. In a rear-end collision, the most common collision in the US, a solid crate will take the full force of the impact unleashing explosive energy in to the cargo area and passenger compartment. The solid dog crate will also act as a battering ram against the rear seat exerting massive force upon the vehicle's occupants and potentially penetrating or breaking the rear seat. This may cause serious and possibly fatal injury to human occupants. Standard, solid crates are also likely to break from the forces generated in such a crash, potentially injuring the pets and allowing them to escape