



# SOLCERA

Advanced Materials



CERA4PROTECT®

CERA4RESIST®

LIGHTWEIGHT HIGH-PERFORMANCE  
BALLISTIC PROTECTION

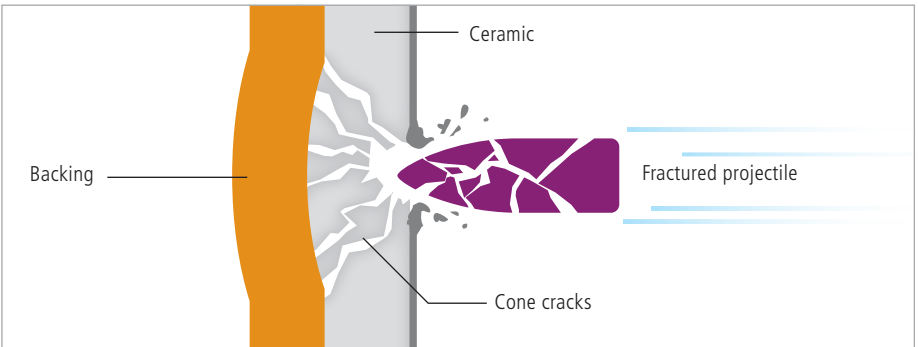
# WHY CHOOSING SOLCERA



- Advanced ceramics, ceramic-metal and glass-metal assemblies
- Approved supplier of French and European military programs for more than 50 years
- Innovation and production for armor and optronic systems
- ISO 9001, 14001 and 45001 certified
- ITAR-free
- Vertical production integration: opaque and transparent ceramics



- Extreme lightweight, high-performance ballistic solutions
- Customized ceramic panels allowing complex shapes (mosaics, holes, cut-outs)
- Lowest density boron carbide panels



The ceramic breaks and slows down the projectile, limiting its perforating force. The integration of the ceramic into a metallic or composite structure (backing) absorbs the energy of the impact and retains the fragments.

		<b>CERA4RESIST<sup>®</sup> WHITE</b>	<b>CERA4RESIST<sup>®</sup> BLACK</b>	<b>CERA4PROTECT<sup>®</sup></b>
	Units			
Composition		Alumina 98% to 99,99%	Boron Carbide	Magnesium Alumina Spinel
Density	g/cm <sup>3</sup>	3.80 to 3.98	2.50	3.58
Hardness - Vickers	GPa	12 to 21	28	14
Flexural Strength	MPa	200 to 600	425	350
Typical size	mm	<b>A wide range of dimensions and specific shapes can be manufactured on demand</b>		
Applications				
Benefits		<ul style="list-style-type: none"> <li>• Cost effective solution</li> <li>• High production capacity at our different facilities</li> <li>• Flexible design and dimensions</li> </ul>	<ul style="list-style-type: none"> <li>• The most lightweight ceramic armor material</li> <li>• Best ballistic performance</li> <li>• Large hot pressing capacity up to 400 x 400 mm</li> <li>• Supplier of major programs (NH90, A400M etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Weight savings up to 50% compared to glass</li> <li>• Resistance to extreme conditions</li> <li>• Transparent from near UV (300nm) to infrared (5µm)</li> </ul>



Z.I. n°1 - rue de l'Industrie - 27000 ÉVREUX - FRANCE  
Tél. : +33 2 32 29 42 00 - info@solcera.com

