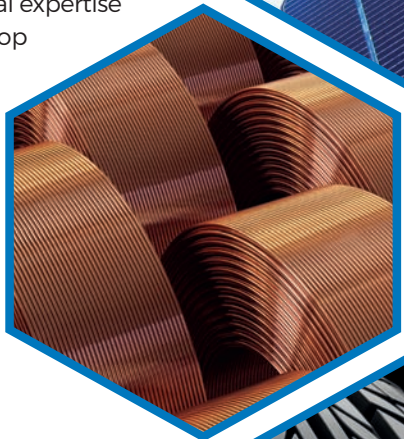
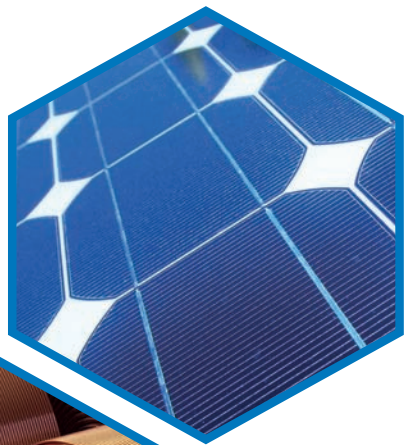


APPLICATION KNOWLEDGE

HYPERION MATERIALS  
& TECHNOLOGIES

Hyperion has been manufacturing a wide range of premium products for the wire drawing industry for over 70 years, from polycrystalline diamond (PCD) and carbide blanks to rough core dies and diamond compounds, slurries, and suspensions. Hyperion not only provides innovative products but also offers technical expertise that can be leveraged to develop your drawing solutions.

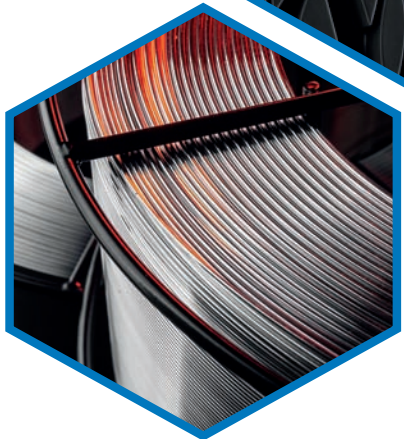


TUNGSTEN CARBIDE

Our tungsten carbide wire drawing products are used in the forming of these materials: steel cord for rubber reinforcement, sawing wire, bead wire, welding wire, galvanized wire, stainless steel, spring wire, etc.

PCD

We manufacture a full line of polycrystalline diamond (PCD) wire die blanks to serve a wide-range of wire-drawing and extruding applications: stainless steel, welding wire, sawing wire, tire cord, electrical wire, and medical wire applications.



VERSIMAX™ AND VERSIRION™

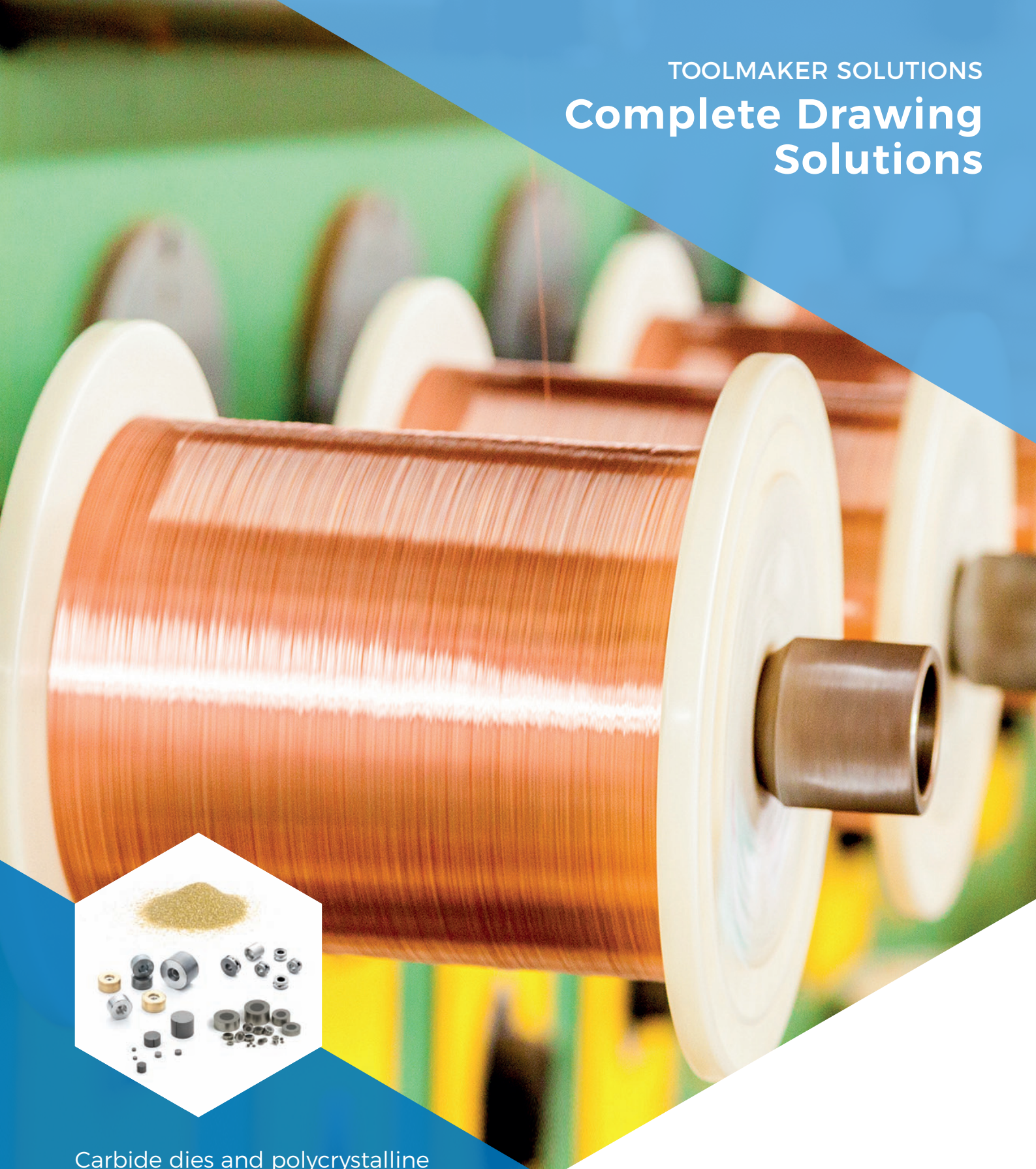
Hyperion's Versimax and Versirion are unique solutions for drawing and compacting applications for various ferrous and non-ferrous materials. They offer exceptional wear resistance, mechanical strength, and high temperature performance.

DIAMOND COMPOUNDS

We manufacture a range of premium diamond powders, compounds, slurries, and suspensions. These products are the ideal answer for finishing wire die surfaces and can be custom formulated for your wire drawing conditions.



TOOLMAKER SOLUTIONS  
Complete Drawing  
Solutions



Carbide dies and polycrystalline diamond and diamond composite blanks for drawing, compacting, and stranding





HYPERION MATERIALS & TECHNOLOGIES - YOUR COMPLETE DRAWING SOLUTIONS PROVIDER



1-HOT ROLLS

HOT ROLLS

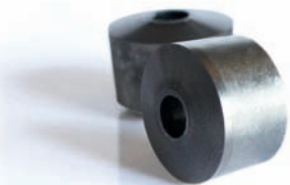
The composite design of Hyperion's cast-in-carbide (CIC®) rolls merge excellent pass form wear resistance with strength and toughness in the roll body. The composite design means that carbide performs the rolling, while torque transmission is handled by the ductile cast iron. Hyperion CIC rolls handle round, square, and hexagonal bars, flat strips, rebars, angles, and tubes with pass life up to 20 times that of ordinary cast iron rolls.



2-SHAVING DIE BLANKS

SHAVING DIE BLANKS

Hyperion manufactures tungsten carbide rough shaving die blanks with cylindrical or tapered outer diameters. We offer the technical expertise to develop the carbide grade needed to fit your application as well as to tailor-make parts according to your drawing.



3/4-TUNGSTEN CARBIDE DIES AND BLANKS

DRAWING DIES

Hyperion's wide offering of wet and dry tungsten carbide drawing dies is designed according to industry standards or customer specifications. Our unique hot and cold casing processes are capable of handling high volumes and provide:

- Increased die life
- Better stress balance
- Improved heat dissipation.



CARBIDE BLANKS

Hyperion's drawing nibs are known for their impeccable geometry and unique and consistent tungsten carbide grade composition. We offer not only a wide range of standard dimensions but also the unique ability to partner with you to create a special design for your needs.



5-COMPAX® BLANKS FOR SUPPORTED AND SELF-SUPPORTED PCD DIES

PCD BLANKS

Hyperion's self-supported and carbide supported polycrystalline diamond (PCD) die blanks portfolio covers a wide range of dimensions and applications for wire drawing. The unique material properties provide very good abrasion resistance and the ability to achieve a high quality surface finish.



6-VERSIRION™ AND VERSIMAX™ BLANKS

VERSIRION™ AND VERSIMAX™ DIE BLANKS

Hyperion's revolutionary Versirion™ and Versimax™ silicon carbide and PCD composites are used for stranding and other applications. Versirion™ and Versimax™ die blanks are free-standing cylinders that are electrically conductive and can be easily pierced using EDM technology. Versirion™ and Versimax™ die blanks are thermally stable up to 1400°C.



7-TUNGSTEN CARBIDE WEAR PARTS AND COLD ROLLS

WEAR PARTS

Hyperion manufactures a wide range of fully finished and ready-to-use tungsten carbide wear parts (e.g., guide wheels, guide bushes, etc.) for the wire industry. These can be manufactured according to your specifications.



COLD ROLLS

In cold rolling applications, Hyperion's tungsten carbide rolls increase productivity and reduce downtime. The tonnage rolled between regrinds is increased nearly 30:1 because the hardness of our rolls is higher than that of high speed steel rolls.

8-DIAMOND COMPOUNDS

DIAMOND

Starting with the highest quality of raw materials, Hyperion uses advanced engineering methods to manufacture diamonds with specific characteristics of strength and toughness. State-of-the-art micronizing techniques assure the diamond powders have precisely defined sizes, shapes, and surface properties for polishing dies.



DIAMOND COMPOUNDS

Hyperion's offering of diamond compounds is a combination of premium diamond powder and superior lubricants (paste), creating the optimal polishing products.



VERSIRION™ AND VERSIMAX™ DIE BLANKS

VERSIRION™

Hyperion Materials & Technologies is introducing the Versirion™ series, a revolutionary silicon carbide and polycrystalline diamond (PCD) composite with increased wear property and thermal stability. Versirion™ is made by a state-of-the-art high-pressure high-temperature process and is based on the Versimax™ composite developed for wire drawing and wear applications.

VERSIRION™ AND VERSIMAX™

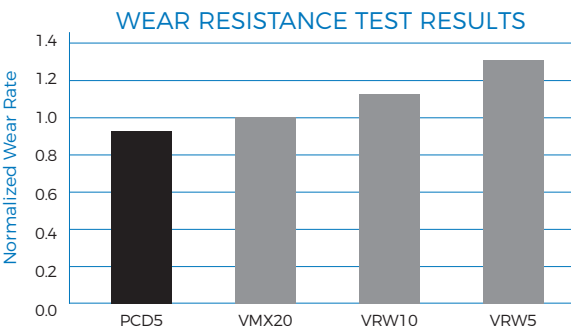
Versirion and Versimax exhibit superior wear resistance, high temperature performance, and high strength approaching that of Co-sintered PCD, with the addition of superior thermal stability. Versirion exhibits the most superior corrosion resistance.

MAIN APPLICATIONS FOR FERROUS AND NON-FERROUS WIRES

- Bunching
- Compacting
- Drawing
- Extrusion
- Stranding
- Wear applications

MAIN ADVANTAGES

- Superior thermal stability compared to that of PCD
- Significantly reduced coefficient of thermal expansion (CTE) mismatch
- Thermally stable up to 1400°C, which creates less risk of failures during applications
- Easy to process:
  - Electrically conductive: EDM processability allows flexibility in cutting various geometries
  - Sizes larger than those of unsupported PCD: diameter - 35 mm and height - 35 mm
- Does not require polishing of the bore to achieve the surface finish of the wire
- Ability to be easily brazed or shrink fitted into casing
- Versatility: ferrous and non-ferrous wires
- Wear resistance comparable to that of PCD and corrosion resistance slightly better than that of PCD.



VERSIRION™ AND VERSIMAX™ PRODUCT OFFERING

GRADE	APPLICATIONS			AVERAGE GRAIN SIZE	
Versirion™ (VRW5)	- Low carbon steel - Tire cord	- Aluminum - Copper with higher surface finish requirement		Fine Grain Average 5 µm	
Versirion™ (VRW10)	- Low carbon steel - Coated steel	- Aluminum - Copper with lower surface finish requirement		Medium Grain Average 10 µm	
Versimax™	- Bunching - Stranding	- Wear application - Compacting	- High pressure - High temperature	Coarse Grain Average 20 µm	