

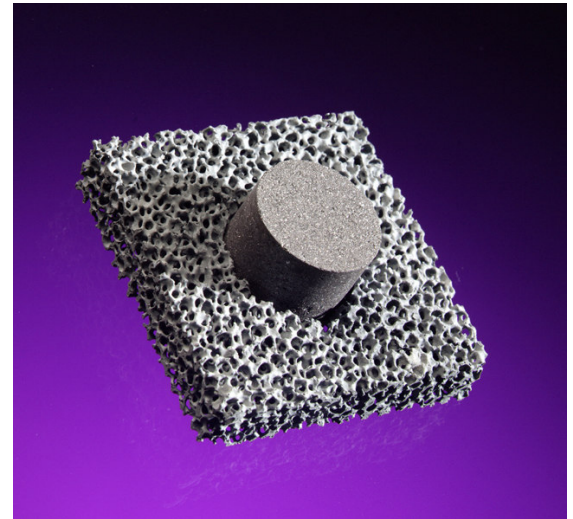
## ***Innovation from SELEE Corporation For Iron Foundries***

- ***Reduction of inclusion defects***
- ***Elimination of carbides***
- ***Control of casting microstructure***
- ***Improved consistency in castings***
- ***Adjust mechanical properties of castings***
- ***Improved machinability of castings***

Talvic<sup>®</sup> is an innovative product that effectively combines inoculation and filtration for either grey or ductile iron castings. The placement of an inoculant pellet specifically designed to dissolve uniformly and predictably within a high-quality ceramic foam filter provides the foundry with the unique opportunity to control both the casting microstructure and the casting cleanliness.

Talvic's<sup>®</sup> unique ability to inoculate and filter the liquid iron within the mold just prior to entering casting cavity provides the foundry with the flexibility of pattern-specific modification of the cast iron. Talvic<sup>®</sup> employs a variety of inoculants designed for unique casting situations. Talvic<sup>®</sup> can effectively eliminate carbides, increase nodule density, improve nodularity, eliminate inoculant fade, modify the ferrite to pearlite ratio in the iron, reduce shrinkage and porosity, increase type A graphite and improve the machinability of the casting.

SELEE Corporation developed Talvic<sup>®</sup> to be tailored to the unique requirements of specific casting applications. To obtain additional information on how Talvic<sup>®</sup> can improve your castings, please contact your local SELEE representative.



An Inoculant Filtration System

- ***SELEE<sup>®</sup> Ceramic Foam Filters deliver superior metal cleanliness***
- ***FerroPEM superior inoculant compositions address a wide range of casting challenges***
- ***Uniform dissolution of inoculant pellets promotes microstructural consistency throughout the castings***
- ***Easy to use***
- ***Talvic<sup>®</sup> is custom-tailored for individual casting applications***
- ***Effective in either grey iron or ductile iron casting applications***
- ***Economically competitive patented technology***

# Examples of Specific Talvic® Applications

- **Improved Machinability of Grey Iron**
  - Electric melt
  - Horizontal molding
  - Increased % of Type A Graphite in microstructure and eliminated Type E graphite in Microstructure
- **Eliminated Stream Inoculation in Grey Iron**
  - Cupola Melt
  - Horizontal Molding
  - Improved % of Type A graphite in microstructure
  - Eliminated Stream Inoculation
- **Eliminated Fade in treated Ductile Iron**
  - Electric Melt & Tundish Treatment
  - Horizontal Molding
  - Increased acceptable hold time of treated ductile iron by 300%
  - Eliminated ladle inoculation
- **Increased Nodule Density in Ductile Iron**
  - Electric Melt & Sandwich Treatment
  - Vertical molding
  - Increased Nodule Density in casting by 20%
  - Eliminated Stream Inoculation
- **Eliminated Carbides in Ductile Iron**
  - Electric Melt & Tundish Treatment
  - Horizontal molding
  - Eliminated carbides in casting
  - Eliminated Ladle Inoculation and mold inoculation
- **Reduced Shrinkage in Ductile Iron**
  - Electric Melt & Tundish Treatment
  - Horizontal Molding
  - Eliminated shrink in casting

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