

## Sentinel X500 Inhibited Antifreeze

Leave-in protection against freezing temperatures, corrosion and limescale

To provide protection against corrosion and limescale in properties vulnerable to sub-zero temperatures, cleaned central heating systems should be dosed with Sentinel X500 Inhibited Antifreeze.

- **Superior frost protection**

Safe-to-use non-toxic product protects to at least -6°C.

- **Intelligent formulation with multiple pH stabilisers**

Prevents large swings in pH which can cause and accelerate corrosion of high value components such as heat exchangers and radiators.

- **Unique anti-corrosion formulation with heavy duty inhibitors**

Protects all common system metals against corrosion.

- **Multiple limescale inhibitors**

Protect high value components such as heat exchangers against limescale formation.



### The Sentinel System

Lifetime protection for heating and hot water systems using the best practice process of...



**CLEAN**  
WITH  
APPROPRIATE  
CLEANER



**PROTECT**  
WITH X500  
INHIBITED  
ANTIFREEZE



**MAINTAIN**  
WITH  
TEST KIT

## Application

Sentinel X500 is a multipurpose inhibited antifreeze formulated to help control corrosion, scale, boiler noise and hydrogen gassing in all types of indirect heating systems including those containing aluminium components. If minimum levels are maintained the product ensures a permanent protection and does not need to be replaced. Sentinel X500 is suitable for use in all waters, both hard and soft. The low toxicity formulation is colourless and easy to handle.

## Dosing

The dosage of Sentinel X500 will depend on the level of frost protection required. One 20L drum of Sentinel X500 added to a typical domestic system of 8 to 10 radiator panels will provide the minimum concentration of corrosion and scale inhibitor and also protection from freezing down to approximately -6°C. Two 20L drums will provide protection to -20°C. A dosage of 20% or more is needed to achieve the minimum concentration of corrosion and scale inhibitor.

The Sentinel X100 Quick Test Kit can be used to verify that this level has been reached. To determine the precise glycol concentration, a refractometer is required. Further information is available upon request.

For best results, it is recommended that systems are cleansed and flushed in accordance with BS7593; new systems and those up to 6 months old with Sentinel X300, existing systems with Sentinel X400 or X800. If the system is already noisy due to limescale deposits in the heat exchanger, Sentinel X200 should be added together with Sentinel X500.

**Open Systems:** Dose via F&E cistern, via a by-pass feeder or use a Sentinel Dosing Vessel.

**Sealed Systems:** If the system is empty, add to any convenient point before filling. If full, partially drain the system and then use a Sentinel Dosing Vessel to inject via the filling loop or other access point.

## Physical properties

**Appearance:** Clear colourless liquid

**Odour:** Mild slightly sweet

**Specific gravity:** 1.04 (20°C)

**pH in aqueous solution (5%):** 6.5 (approx)

**Freezing point:** -58°C

## Safety Information

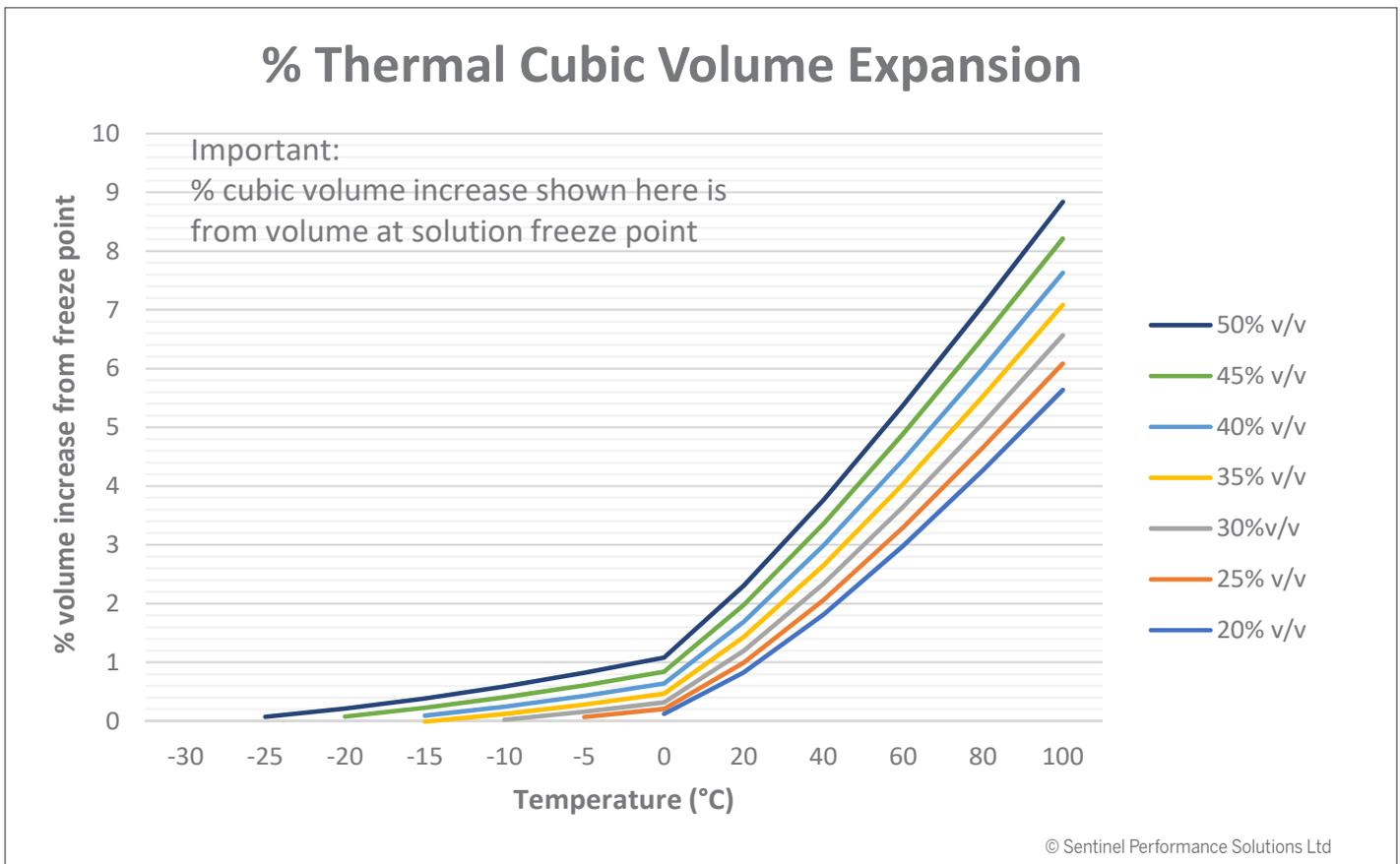
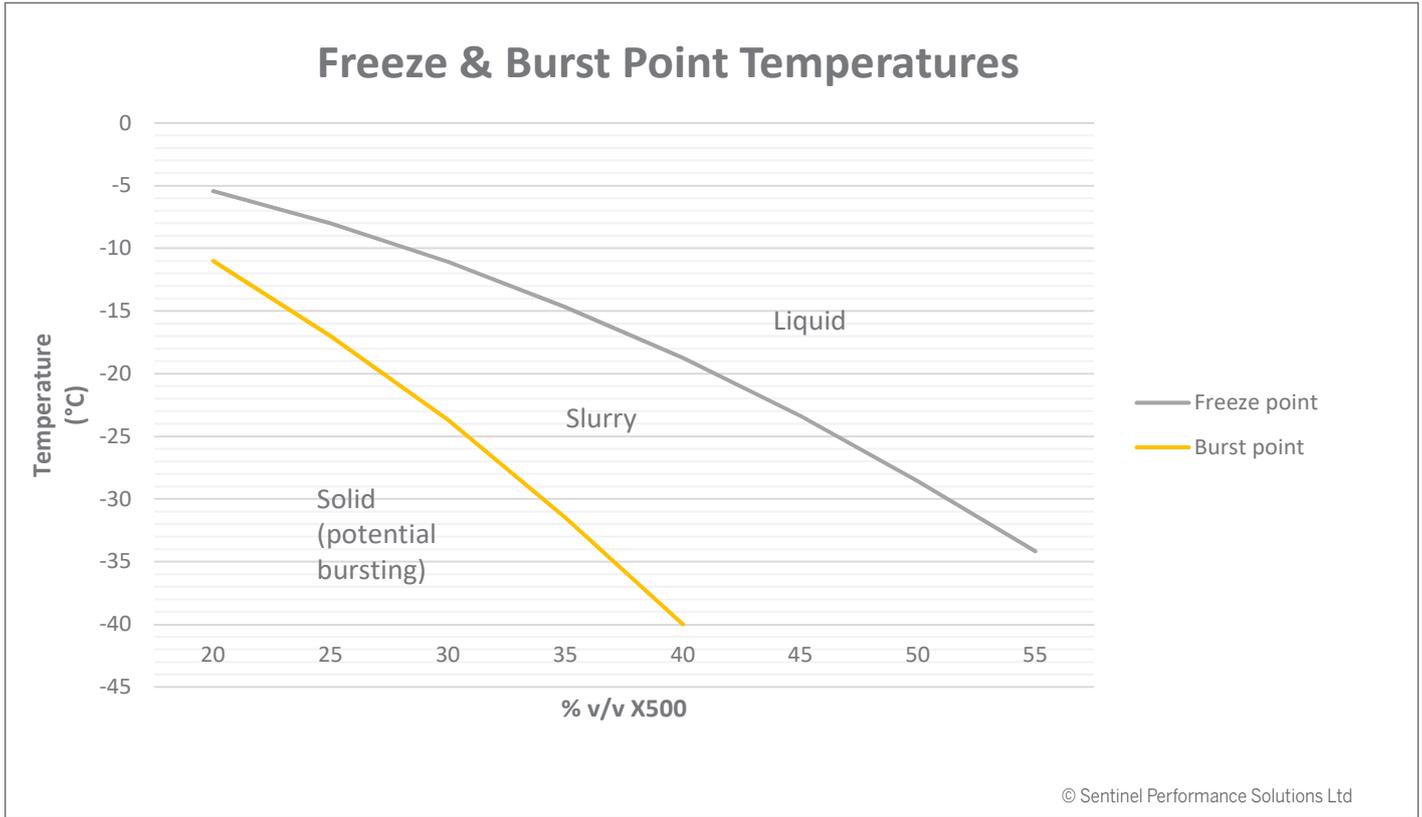
The information provided below enables compliance with the Control of Substances Hazardous to Health Regulations. A full Safety Data Sheet is available upon request.

| Description       | <b>Inhibited Antifreeze for central heating systems</b><br>A solution of inorganic and organic corrosion and scale inhibitors in propylene glycol.  |
|-------------------|---|
| <b>Handling</b>   | Avoid contact with skin and eyes.<br>Keep out of reach of children and animals.<br>Wash out empty container thoroughly with water before disposal.  |
| <b>Storage</b>    | Keep container tightly closed.<br>Store in cool, well ventilated area.  |
| <b>Spillage</b>   | Flush spillage with plenty of water and wash to waste.<br>On soil: Absorb on to inert material and dispose of according to Controlled Waste Regulations.  |
| <b>First aid</b>  | Skin Exposure: Wash immediately with plenty of water.<br>Eye Exposure: Flush immediately with plenty of running water.<br>Seek medical advice.<br>Ingestion: Rinse mouth with water.<br>Do NOT induce vomiting!<br>Seek medical advice. |
| <b>Additional</b> | Not for use in potable water systems.<br>Not considered hazardous to health.<br>Non-flammable.  |

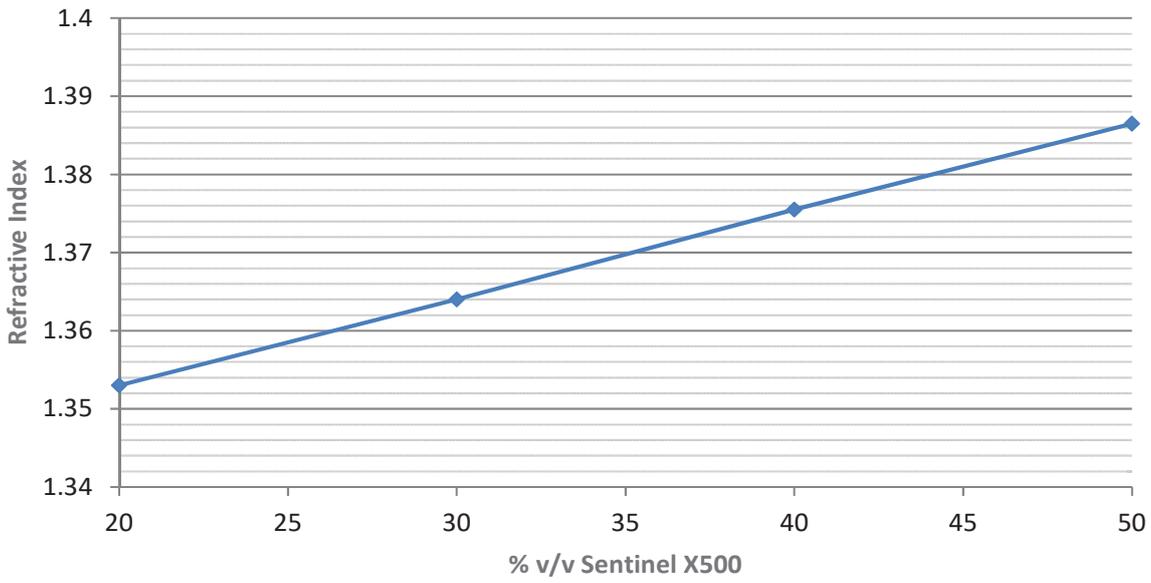


# Appendix

The following graphs depict the most important physical properties of Sentinel X500 mixtures.

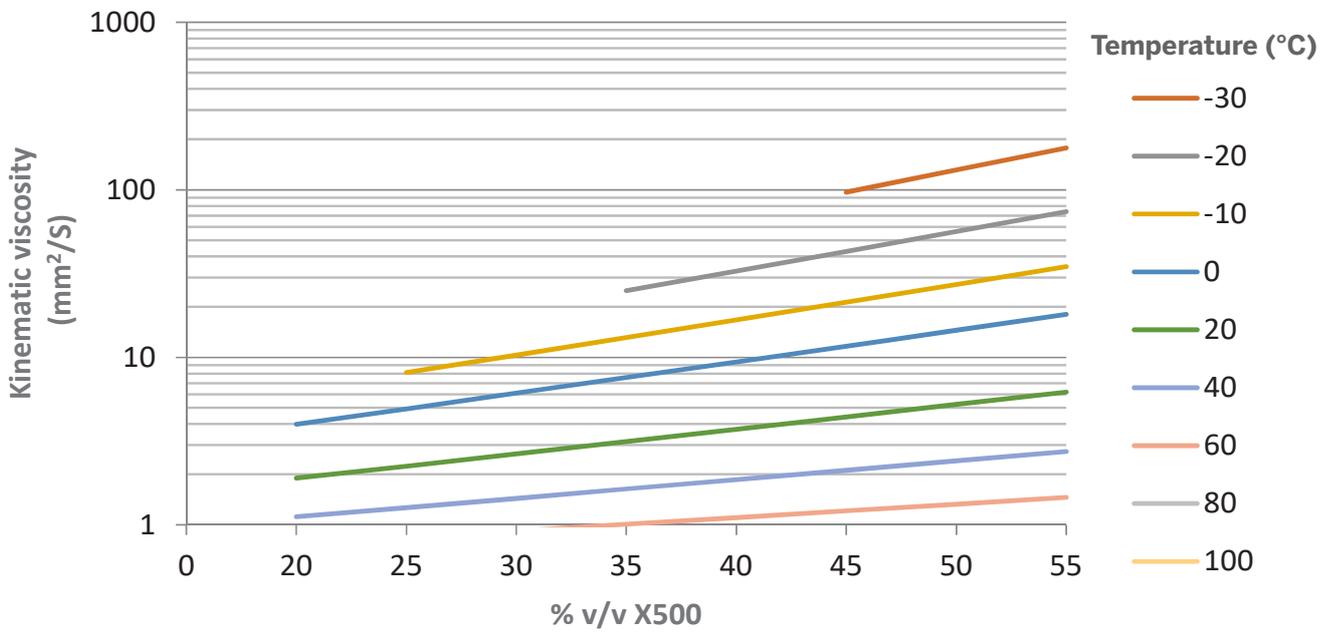


## Refractive Index



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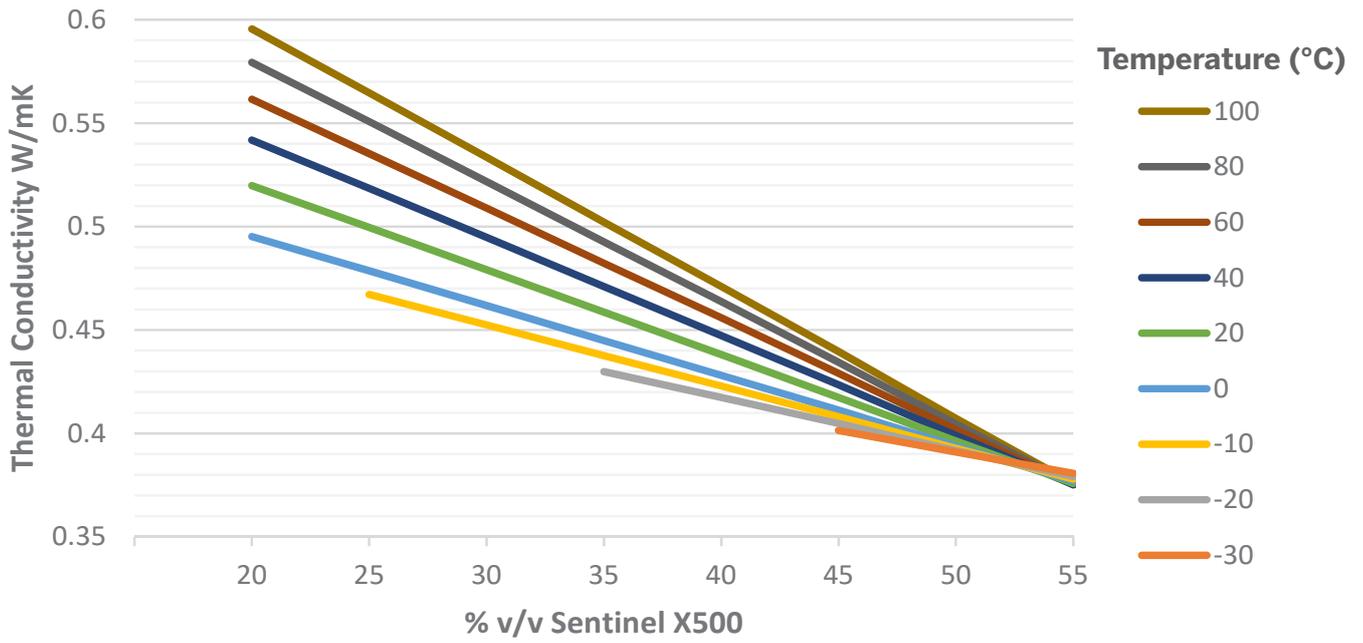
## Kinematic Viscosity Sentinel X500



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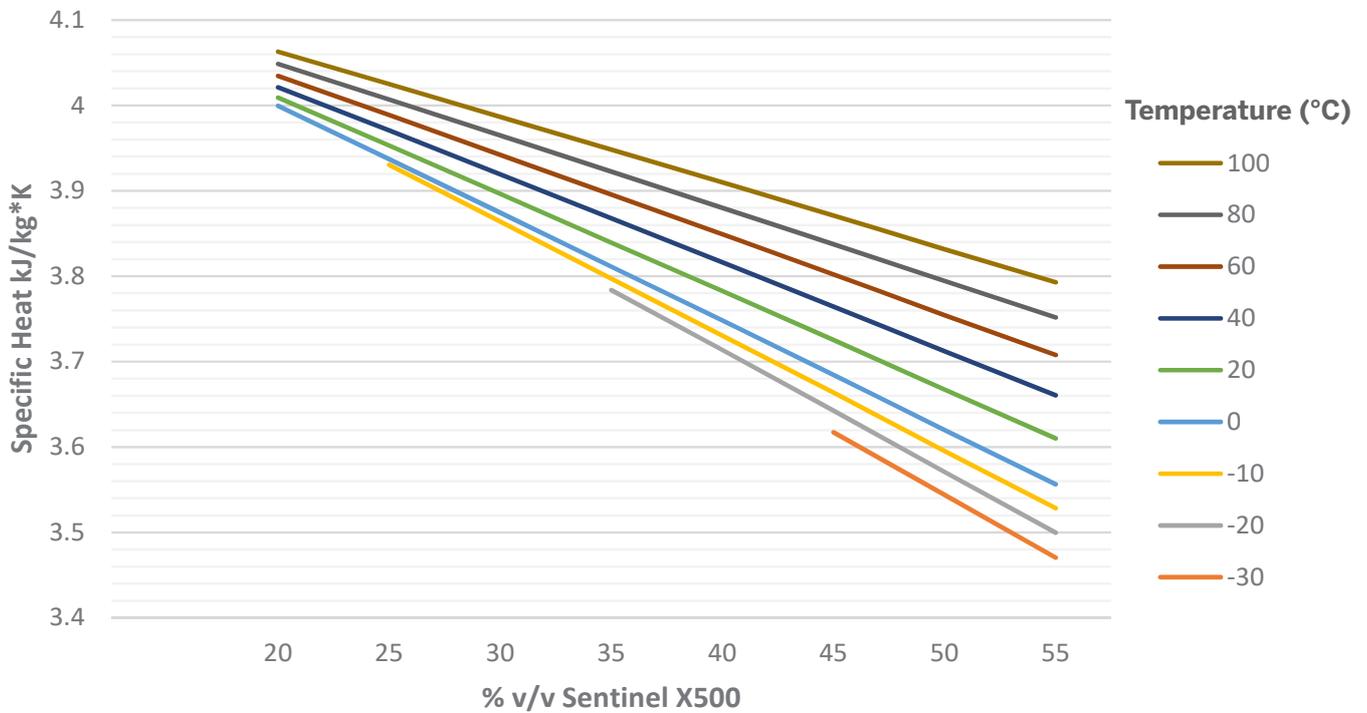


# Thermal Conductivity



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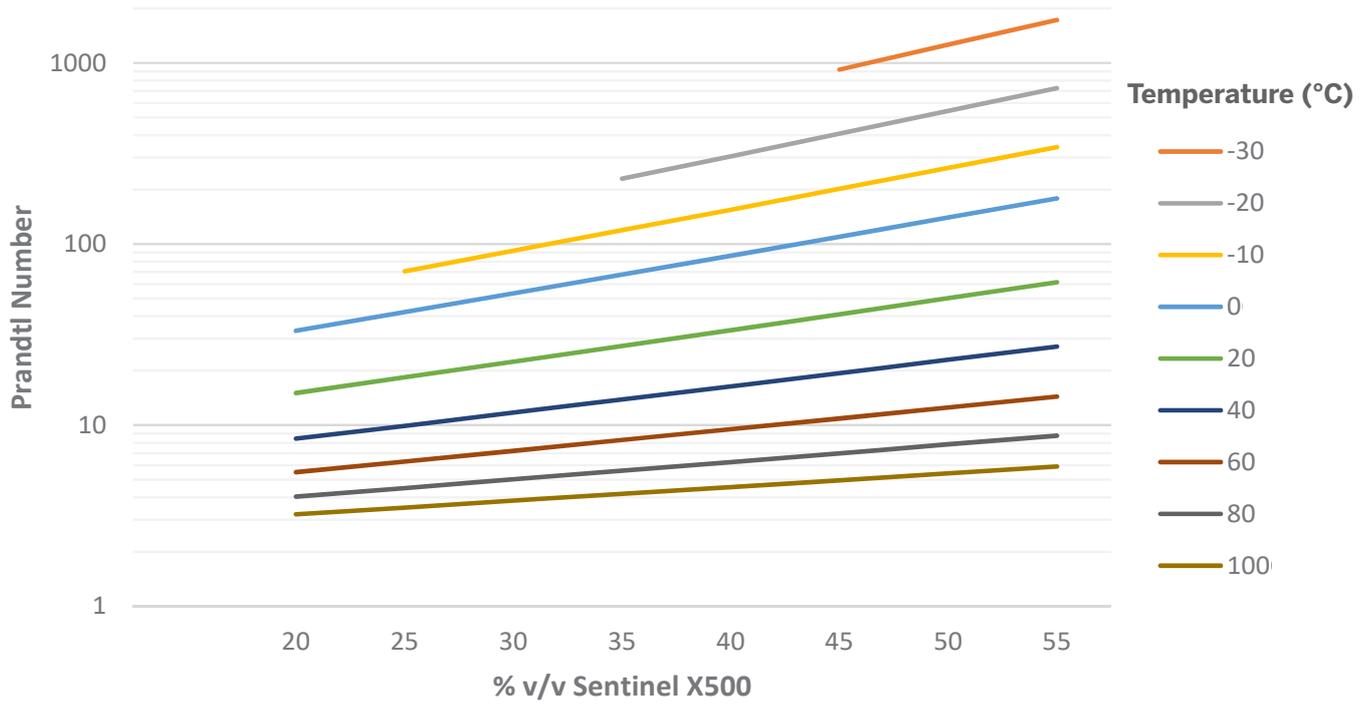
# Specific Heat



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# Prandtl-Zahl Number



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The use of Sentinel water treatment is endorsed by the industry's major international manufacturing companies\*



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