

63450 Xanthan – thickening agent for sodium silicate

Parameter	Method	Specification	Result
Appearance	FCC	cream-colored powder	conforms
Solubility	FCC	readily soluble in hot or cold water	conforms
Particle size through 200 mesh [%]		≤ 95.0	98.9
Viscosity (1% solution in KCI 1%) [mPas]	CER-XAN-01	1200 – 1600	1450
Viscosity ratio V1 : V2	FCC	1.02 – 1.45	1.06
Loss on drying [%]	FCC	max. 15.0	8.9
Ash (i.Tr.) [%]	USP/NF	max. 16.0	6.5
Lead [mg/kg]	FCC	max. 2	max. 2
Ethanol and propan-2-ol [mg/kg]	FCC	max. 500 singly or in comb.	207
Nitrogen [%]	Kjeldahl	max. 1.5	max. 1.5
Pyruvic acid [%]	FCC	min. 1.5	3.4
CO ₂ Content (corresponding to between 91 % and 108 % of Xanthan gum) [%]	FCC	4.2 – 5.0	4.5
Total plate count [cfu/g]	Ph. Eur.	< 2000	75
Yeast and moulds [cfu/g]	Ph. Eur.	< 200	< 50
E. coli	Ph. Eur.	absent in 25 g	absent
Salmonella spp.	Ph. Eur.	absent in 25 g	absent
Xantomonas campestris	Ph. Eur.	no viable cells in 1 g	no viable cells

The analyzed sample material meets the respective requirements of E 415; FCC 9



„Day two covered gel delivery systems for aqueous solutions and solvents, with the focus on xanthan gum, agarose, Pemulen TR2 , and Velvesil Plus. A water solution of xanthan gum (2% w/v) and triethanolamine (TEA) (5% v/v) forms a viscous, pH 8.5% gel that is stable over a wide pH and temperature range. Additional materials can be added to make custom cleaning poultices. Oxidizing agents, such as bleach, and most cationic materials, such as ammonia, cannot be used as they cause the gel to collapse. Xanthan gum gels can also hold non-polar solvents in intermolecular pockets (oil in water emulsion), a property which has the potential to greatly reduce the conservator’s exposure to solvent. These gels rinse well making them suitable for use on paper and textiles.”

Quoted by Rebecca Pavitt:

Cleaning of Painted Surfaces - Wolbers Strikes Again! - A Workshop Review by Rebecca Pavitt, IIC, London