

消泡剂 在石化行业 中的应用

起泡物 Foaming substance :

原油 ;
Crude oil ;

四新最优推荐 First recommendation :

X-101A ;

其次推荐 Second recommendation :

X-102A ;

添加点 Adding point :

随原油一起添加 ;
Add together crude oi ;

添加方式 Adding method :

直接添加 ;
Add directly ;

起泡环境 Foaming circumstance :

原油在减压条件下释放截留气体时易于产生泡沫，这一趋势会大幅度限制产量，海洋钻井设备中由于容器尺寸的限制产生泡沫现象尤其严重；气液混合，液体粘度大；
It's easy to foam when crude oil under the condition of reduced pressure release trapped gas, this trend will drastically limit output. Due to the limited containers' size in marine drilling equipments, lots of foams are generated. Gas-liquid mixing, viscosity is high;

参考用量 Reference dosage :

10~1000ppm ;

注意事项 Notes :

高含量乳液产品如果要稀释，最好是用增稠水稀释；
Highly concentrated emulsion is preferably diluted with thickened water if needed;

起泡物 Foaming substance :

水泥浆 ;
Cement slurry ;

四新最优推荐 First recommendation :

X-18C ;
G-20A ;

其次推荐 Second recommendation :

CS-04B ;
CS-502C ;

添加点 Adding point :

在水泥加工混合的过程中加入 ;
In the process of cement processing and mixing ;

添加方式 Adding method :

直接添加 ;
Add directly ;

起泡环境 Foaming circumstance :

与外加剂的成分、水的矿化度、水泥的气化及注水泥设备搅拌等多方面的因素有关，水泥浆中含有木质素磺酸盐外加剂，水中Ca²⁺、Mg²⁺和Cl⁻等离子浓度过高都极易诱发水泥浆产生气泡；水泥混合高剪切，最高可达12000rpm；
Be relative to additive composition, water salinity, the gasification of cement and cementing equipment mixing various factors. Slurry containing lignin sulfonate additive, content of Ca²⁺, Mg²⁺ and Cl⁻ plasma concentration in water is too high, it's easy to induce bubbles in slurry. High shear force can reach up to 12000rpm;

参考用量 Reference dosage :

100~5000ppm ;

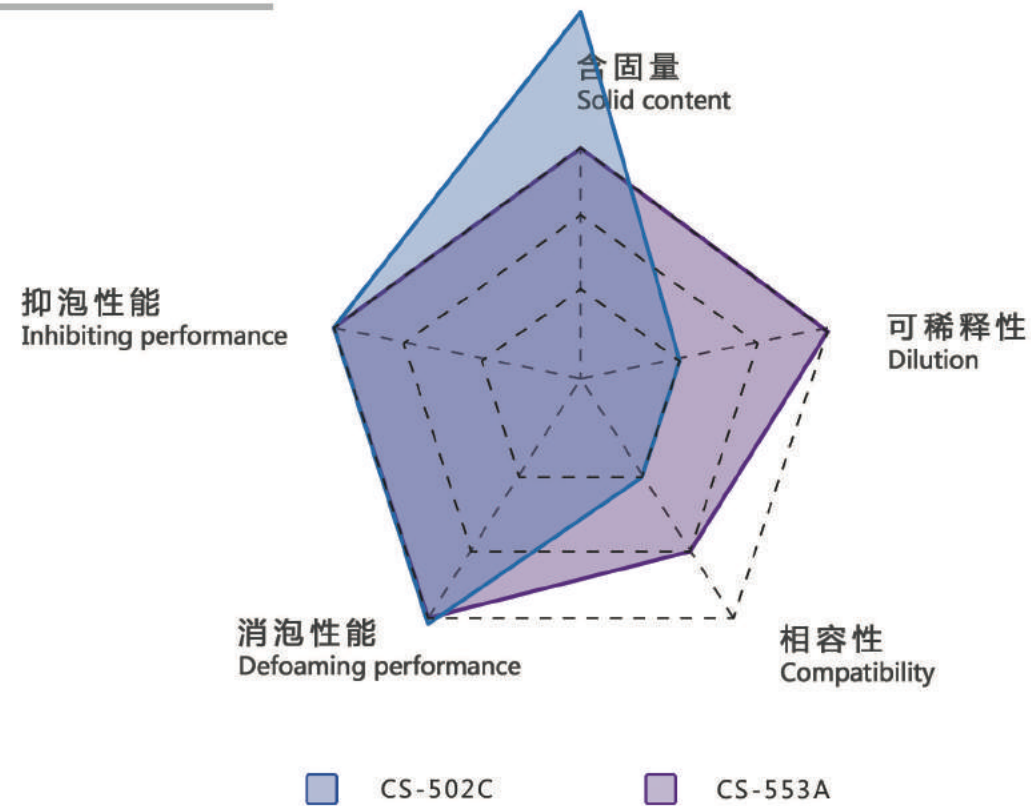
注意事项 Notes :

高含量乳液产品如果要稀释，最好是用增稠水稀释；
Highly concentrated emulsion is preferably diluted with thickened water if needed;

油气(水)分离
OIL AND GAS (WATER)
SEPARATION

固井
THE CEMENTING

消泡剂 在石化行业 中的应用



起泡物 Foaming substance :

洗气设备释放的气体 ;
Gas released from the gas cleaning equipment ;

起泡环境 Foaming circumstance :

洗气设备在脱除CO₂和H₂S时易产生泡沫。这一工艺常用于天然气和炼厂气中，作为气体处理一部分，应用于乙烯（蒸汽裂解）和环氧乙烷的生产。进气中微量杂质如液态烃，井口抑制剂，腐蚀固体和阀门的油脂，无论用何种吸收剂（MDEA, DEA, TEA和DGA或碳酸盐）同样都会产生泡沫；
It's easy to generate foams when gas cleaning equipment removing CO₂ and H₂S. This process is often applied in natural gas and refinery gas plants. As part of gas processing, applied in production of ethylene (steam cracking) and ethylene oxide. Trace impurities such as liquid hydrocarbon, wellhead inhibitor, corrosive solids and valve oil, no matter which absorbent (MDEA, DEA, TEA and DGA or carbonate) is used, it can generate foam ;

四新最优推荐 First recommendation :

CS-502C ;
CS-553A ;

其次推荐 Second recommendation :

CS-07B ;

添加点 Adding point :

胺冷却器前和气体回流冷凝器前 ;
Before amine cooling unit and the gas reflux condenser ;

添加方式 Adding method :

连续或间歇添加 ;
Continuous or intermittent addition ;

注意事项 Notes :

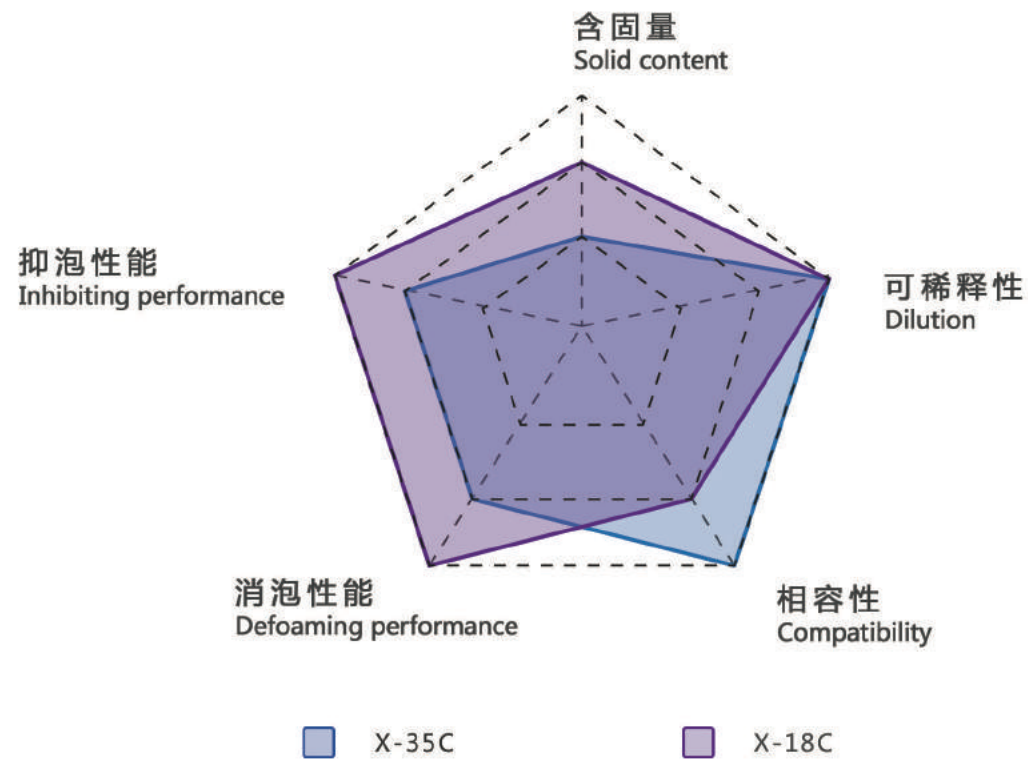
矿物油产品不建议稀释使用 ;
Mineral oil products are not recommended to be diluted ;

参考用量 Reference dosage :

1‰ ~ 5‰ ;

气体洗涤 GAS WASHING

消泡剂 在石化行业 中的应用



起泡物
Foaming substance :

钻井液 ;
Drilling fluid ;

四新最优推荐
First recommendation :

X-35C ;
G-20A ;

其次推荐
Second recommendation :

X-18C ;

添加点
Adding point :

有些添加在钻井助剂中，有些直接在现场添加；
Some are added to the drilling auxiliaries and some are added on site directly；

添加方式
Adding method :

内添加或直接添加；
Add with other auxiliaries or add directly；

起泡环境
Foaming circumstance :

(1) 地层气：当钻遇含气地层时，地层中的烃类、CO₂、H₂S等气体均易扩散或侵入钻井液中。

(2) 处理剂分解产生气体。(3) 空气：钻井液通过地面循环时，容易从振动筛、搅拌机、泥浆泵等处引入空气。(4) 表面活性剂：有时为稳定钻井液pH值，提高钻井液热稳定性，还需直接加入烷基磺酸钠(AS)、烷基苯磺酸钠(ABS)、聚氧乙烯辛基苯酚醚(如OP-10)等起泡性较强的表面活性剂。温度能达到200℃；气液混合；

(1) Formation gas: when drilling into the gas-bearing formation, the hydrocarbon, CO₂, H₂S and other gases in the stratum are easily diffused or intruded into the drilling fluid. (2) The treatment agent decomposes the gas. (3) Air: when drilling fluid is circulating through the ground, it is easy to introduce air from the vibrating screen, agitator, mud pump and so on. (4) Surfactant: Sometimes to achieve a stable drilling fluid pH value, improve drilling fluid thermostability, still need to add surfactants with strong foaming ability such as sodium alkyl sulfonate (AS), sodium alkyl benzene sulfonate (ABS), polyoxyethylene octyl phenol ether (such as OP-10). The temperature can reach 200 °C; Gas-liquid mixing.;

参考用量
Reference dosage :

100~5000ppm ;

注意事项
Notes :

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石油开采
OIL DRILLING