



Anticorrosive Protection

Corrosion is a very severe problem in oil and gas fields, as many stages of technological processes imply the use of water either invading from geological formation or injected through the reservoir pressure maintenance system (RPMS). Casing pipes, ground pipelines, pressure tanks and storage tanks suffer from internal corrosion increased by the presence of carbon dioxide and hydrogen sulfide, and sometimes the presence of oxygen in the injected water.

Losses connected with corrosion damages in oil-&-gas industry including the costs connected with premature failure of the equipment, its replacement, operating losses and environment protection costs are estimated as billions of dollars. This has prompted the experts to research the options of extending the service life and reliable operation of equipment while ensuring the continuity of the production cycle and controlling the corrosion risks. This problem to a great extent can be solved with the application of corrosion inhibitors.

To control corrosion rate the company of Polyex offers both its own chemicals and the chemicals worked out by the company of ARKEMA FRANCE, France.



Chemicals and technologies for anticorrosive protection:

1. Wide range of film forming CO_2 and H_2S corrosion inhibitors of **POLY-INCORE 365** and **NORUST** brands allows selecting the chemicals both for continuous injection and for batch treatment. Inhibitor injection in oil pipeline systems is usually performed continuously with the help of controlled-volume pump. For the treatment of annular space of wells equipped with electric centrifugal pumps and for the underground equipment protection the treatment is normally performed periodically, one time every one or two weeks. Polyex also offer the chemicals applicable by the technique of inhibitor squeezing into formation and the technique of placing specialized downhole containers with the inhibitor under electric centrifugal pump.

Choosing of an inhibitor and a technique of its application depends on the requirements to protective film stability over time, on the operation mode and on the factors affecting oil field equipment exploitation. Inhibitor consumption rate depends on H_2S content in the medium and its corrosiveness and is defined with laboratory tests.



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Chemical	Description	Purpose of Application	Application Technique	Comments	
POLY-INCOR® 365 Grade 011	CO ₂ and H ₂ S corrosion inhibitor	Protection of infield flow lines, oil gathering system, RPMS and oil processing system from CO ₂ and/or H ₂ S corrosion	Continuous injection, Batch treatment	Liquid. Consumption rate varies from 15 to 30 g/m ³	
		Protection of casing pipes and production tubing from CO ₂ and/or H ₂ S corrosion			
		Protection of pipeline transportation systems from CO ₂ and/or H ₂ S corrosion			
		Protection of oil field equipment from CO ₂ and/or H ₂ S corrosion			
		Protection of recovered water systems from CO ₂ and/or H ₂ S corrosion			
POLY-INCOR® 365 Grade 021	CO ₂ and H ₂ S corrosion inhibitor	Protection of watered out oil gathering systems from CO ₂ and/or H ₂ S corrosion	Continuous injection	Liquid. Consumption rate varies from 15 to 30 g/m ³	
		Protection of RPMS from CO ₂ and/or H ₂ S corrosion			
		Protection of pipeline transportation systems from CO ₂ and/or H ₂ S corrosion under conditions of low watercut but stratified horizontal flow			
		Protection of casing pipes and tubing from CO ₂ and/or H ₂ S corrosion			
		Protection of oil field equipment from CO ₂ and/or H ₂ S corrosion			
POLY-INCOR® 365 Grade 920 B	CO ₂ and H ₂ S corrosion inhibitor - bactericide	Protection of flow lines, oil gathering systems, RPMS and oil treatment systems from CO ₂ and/or H ₂ S corrosion	Continuous injection, Batch treatment	Liquid. Consumption rate varies from 20 to 50 g/m ³	
		Protection of casing pipes and tubing from CO ₂ and/or H ₂ S corrosion and suppressing of the growth of sulphate-reducing bacteria (SRB) during the oil and gas production			
		Protection of pipeline transportation systems from CO ₂ and/or H ₂ S corrosion and suppressing of the growth of SRB during oil transportation.			
		Protection of oilfield equipment from CO ₂ and/or H ₂ S corrosion and suppressing of the growth of SRB			
		Equipment protection from CO ₂ and/or H ₂ S corrosion and suppressing of the growth of SRB while sour waste water disposal			
POLY-INCOR® 365 Grade C	CO ₂ and H ₂ S corrosion inhibitor	Protection of casing pipes and tubing from CO ₂ and/or H ₂ S corrosion	Continuous dosing of inhibitor with downhole dosing containers	High concentration liquid	
NORUST®760	CO ₂ and H ₂ S corrosion inhibitor	Protection of casing pipes from CO ₂ and/or H ₂ S corrosion	Continuous injection	Liquid. Consumption rate varies from 15 to 50 g/m ³	
		Protection of RPMS from CO ₂ and/or H ₂ S corrosion			
		Protection of pipeline transportation system from CO ₂ and/or H ₂ S corrosion			
		Protection of oilfield equipment from CO ₂ and H ₂ S corrosion			
NORUST®9805	CO ₂ and H ₂ S corrosion inhibitor	Protection of oil and gas-condensate wells from CO ₂ and/or H ₂ S corrosion	Continuous injection	Liquid. Consumption rate varies from 20 to 50 g/m ³	
		Protection of oil gathering system from CO ₂ and/or H ₂ S corrosion			
		Protection of RPMS from CO ₂ and/or H ₂ S corrosion			

To select the optimal consumption of chemicals and application technologies please contact POLYEX specialists. H₂S and CO₂ corrosion inhibitors of NORUST® brand are manufactured in accordance with the technologies and from the components of ARKEMA FRANCE, France.



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