



دفتر الشروط الفنية لتوريد كمية 20 طن لسائل الفرامل SAF-JI7031 DO-4 حسب

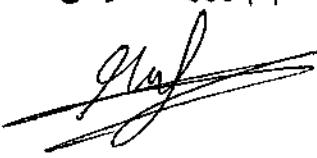
١- المواصفات الفنية للمنتج النهائي

| Specifications | Requirements | | Method Testing |
|--|---|--------|-----------------------------|
| | DOT-4 acc. SAF-JI7031 | | |
| Viscosity at -40 (max) | 1500 | | ISO- 3104 |
| Viscosity at +100 (min) | 1,5 | | |
| Equilibrium reflux boiling point (min) | 230 c° | | ASTM-D-1120 |
| Wet equilibrium reflux boiling point (min) | 155 c° | | |
| PH:50% Ethanol &50% break fluid | 7-11,5 | | ASTM-D-664 ISO-4925/2005 |
| Open flash point (min) | 100 c° | | ASTM D-92 |
| Pour point (max) | -40 c° | | ASTM D-97 |
| Fluid stability | At high temperature Chemical stability | ± 5 c° | ISO-4925/2005 |
| Corrosion metal strip (max) | mg/cm2 | | |
| -tinned iron | ±0,2 | | ISO -4925/2005 |
| - steel | ±0,2 | | |
| -aluminum | ±0,1 | | |
| - cast iron | ±0,4 | | |
| - copper | ±0,4 | | |
| -zinc | | | |
| Change color and staining | Alloyed | | ---- |
| Appearance | | | SAE-CA-260 |
| Specification of fluid after corrosion (% v) | No crystallization and jelly | | ISO -4925/2005 |
| -Appearance at 23 c° | 7-11,5 | | |
| - PH | 0,1 | | |
| Sediments (max) | | | |
| Specification of rubber glass after test corrosion | | | ISO -4925/2005 |
| - separate of carbon and blisters on surface | Non | | |
| -decrease of hardness (max) | 15 IRHD | | |
| - increase diameter base of glass (max) | 1,4 mm | | |
| -increase volume (max) | 16% | | |
| Fluidity and appearance at low temperature | | | |
| At -40 c° & 144 hours | | | |
| - appearance | Pure, homogeneous | | |
| -time release of bubbles (max) | 10 second | | |
| - sediments | Non | | |
| At -50 c° & 6 hours | | | |
| - appearance | Pure, homogeneous | | |
| - time release of bubbles (max) | 35 seconds | | |
| - sediments | Non | | |

| | | | |
|---|-------------------|--|----------------|
| Homogeneous with water | | | |
| -At -40 c° & 22 hours | Pure, homogeneous | | |
| - appearance | 10 second | | |
| -time release of bubbles (max) | non | | |
| - sediments | | | |
| At 60 c° & 22 hours | | | |
| - appearance | Pure, homogeneous | | |
| - sediments | 0,05 % V | | |
| Compatibility with ISO4926 | | | |
| -At -40 c° & 22 hours | Pure, homogeneous | | |
| - appearance | 0,05 % V | | |
| - sediments (max) | | | |
| Resistance to oxidation | | | |
| - appearance of metal strip | Non | | ISO -4925/2005 |
| - change color and forming staining | Allayed | | |
| - Change strip of aluminum mass | ± 0,05 mg/cm2 | | |
| - Change strip of cast iron mass | ± 0, 3mg/cm2 | | |
| Effect on rubber | | | |
| Styrene butadiene rubber(SBR) at 120Cfor 70 hrs | | | |
| - separate of carbon and blisters on surface | Non | | ISO -4925/2005 |
| -change of hardness (max) | -15-0 | | |
| - increase diameter of glass (max) | 0,15-1,4 | | |
| -increase volume (max) | 1-16 | | |
| Monomer daien ethylene propylene at 120C for 70 hrs | | | |
| -change of hardness (max) | -15-0 | | ISO -4925/2005 |
| -change of volume (max) | 1- 10 | | |
| - separate of carbon and blisters on surface | Non | | |

على العرض :

١. ضمان تخزين المواد الأولية لتصنيع سائل زيت الفرامل لثلاث سنوات كحد أدنى .
٢. ضمان تخزين المنتج النهائي (سائل زيت الفرامل) لثلاث سنوات كحد أدنى .
٣. تقديم نشرة فنية تبين مواصفات المادة
٤. توريد المواد بخزانات فليكسى سعة ٣ م
٥. يتم استلام المواد في مستودعات معمل مزج الزيوت بحمص .
٦. مدة التوريد ٩٠ يوم من تاريخ أمر المباشرة
٧. تقديم شهادة منشأ للمواد المطلوبة أثناء التوريد

| | | |
|--|---|--|
| رئيس اللجنة م. يوسف العلي <i>٢٠٢٤/٥/٩</i> | عضو م. فالرس سكروج  | عضو م. رؤوف سليمان  |
| يعتمد / المدير العام المهندس / أكرم محمد العلي  | | |