

## STÄRK Semi Synthetic Gasoline Engine Oil SAE 5W20 SM/CF

### Product Description

**STÄRK 5W-20 SM/CF** is a premium semi-synthetic engine oil specially formulated for gasoline and diesel engines, including those with direct injection and turbocharged technologies. Developed to meet API SM standards, it delivers outstanding protection, viscosity retention, and oxidation stability. Its formulation complies with stringent Seq III G and TEOST MHT tests, which are critical for modern, high-performance engines. The advanced properties of STÄRK 5W-20 SM/CF ensure optimal engine cleanliness, fuel efficiency, and reduced wear across all extreme driving conditions.

### Performance Benefits

- **Superior Cold Start Protection:** Ensures fast lubrication upon cold start, reducing engine wear.
- **Enhanced High-Temperature Stability:** Provides ideal lubrication under high engine temperatures.
- **Extended Oil Life:** Supports extended oil drain intervals, doubling mileage between oil changes.
- **Fuel Efficiency:** Low-friction formula promotes fuel conservation and reduces emissions.
- **Engine Cleanliness:** Keeps engine parts clean with anti-wear additives and superior detergency.
- **Compatibility:** Fully compatible and miscible with other engine oils.

### Typical Properties

Property	Test Method	Value
Viscosity Grade	SAE J300	5W-20
Density @ 15°C	DIN 51757	0.8521 g/cm <sup>3</sup>
Kinematic Viscosity @ 40°C	ASTM D445	48.12 mm <sup>2</sup> /s
Kinematic Viscosity @ 100°C	ASTM D445	8.675mm <sup>2</sup> /s
Apparent Viscosity by MRV @ -35°C	ASTM D4684	22,670 mPas
Apparent Viscosity by CCS @ -30°C	ASTM D5293	6,200 mPas
Viscosity Index	DIN ISO 2909	160
High Temp High Shear (HTHS)@ -150°C	ASTM D5481	2.8 mPas
Pour Point	ASTM D 5059	-36°C
Flash Point	ASTM D 92	220°C
Evaporation Loss (Noack)	ASTM 5800B	10.50%
Total Base Number (TBN)	DIN ISO 3771	7.8 mg KOH/g
Sulfate Ash	DIN 51575	0.78%

### Application

**STÄRK 5W-20 SM/CF** is ideal for use in gasoline and diesel engines in cars, SUVs, and light industrial vehicles. Its formulation is optimized for both turbocharged and multi-valve engines, suitable for European, Japanese, and American car manufacturers.

### Meets and Exceeds

#### Meets

- API: SM/CF
- ILSAC: GF-4 Energy Conservation
- ACEA : A1/B1

#### OEM Approvals

- General Motors GM 6094M
- Chrysler MS-6395N
- Mercedes-Benz 229.3

### Storage and Handling

Store STARK 5W-20 SM/CF in a cool, dry place away from direct sunlight, in tightly closed containers to prevent contamination. Do not store at temperatures above 60°C. Ensure compliance with local regulations for the disposal of used oil.

