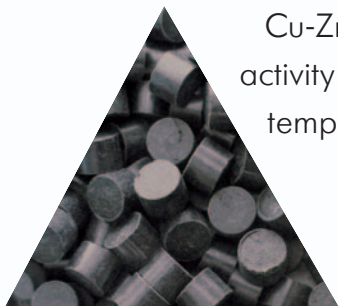


## 1.6. LOW TEMPERATURE CO CONVERSION



ALVIGO

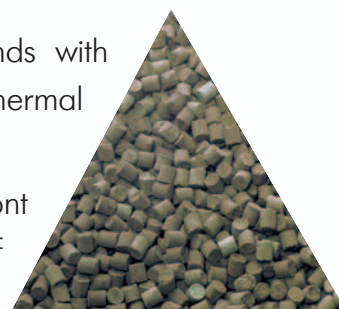


Cu-Zn-Al co-precipitated **SNK- 2** catalyst, which has high activity and minimal methanol formation is offered for low temperature CO steam conversion (Low Temperature Shift).

<b>Appearance</b>	Black cylinders and tablets
<b>Chemical composition, %</b>	
CuO	43
ZnO	43
Al <sub>2</sub> O <sub>3</sub>	11
<b>Bulk density, kg/dm<sup>3</sup></b>	1.3
<b>Size, mm</b>	6 x 4 or 5 x 5
<b>Mechanical side crush strength, N</b>	130
<b>Operating characteristics:</b>	pressure up to 4 MPa, temperature 180-300°C, space velocity of dry gas up to 5,000 h <sup>-1</sup> , steam:gas ratio 0.4-0.8.

**NIAP-06** catalysts comprise copper, zinc and aluminum compounds with additive of special cement, which renders strength to granules at hydrothermal hardening.

**NIAP-06-04** is intended for the main bed, **NIAP-06-03** - for the front layer (for protection of basic catalyst from destruction under the effect of condensed moisture and sulphur poisoning).



	NIAP-06-03		NIAP-06-04	
<b>Appearance</b>	Dark grey to light green cylindrical granules			
<b>Chemical composition, %</b>				
CuO	23-31		45-51	
ZnO	36-44		20-25	
Al <sub>2</sub> O <sub>3</sub>	19		17	
CaO	5-11		4-10	
<b>Bulk density, kg/dm<sup>3</sup></b>	1.2		1.2	
<b>Diameter, mm</b>	5.0	3.5	5.0	3.5
<b>Splitting strength, kg/mm</b>	1.7	1.5	1.7	1.5
<b>Operating characteristics:</b>	pressure up to 3 MPa, temperature 200-360 °C (NIAP-06-03) and 185-360 °C (NIAP-06-04), space velocity of dry gas 2,000- 5,000 h <sup>-1</sup> , steam-gas ratio 0.4-0.8, mass concentration of impurities in initial gas not more than: sulphur - 0.2 mg/m <sup>3</sup> , chlorine - 0.05 mg/m <sup>3</sup> , inlet CO concentration 2-5 % vol.			