

Stary Niemiec

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **38**
- SRM **10.7**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 0.5 kg (8.9%) | 80 % | 4 |
| Grain | Strzegom Bursztynowy | 0.5 kg (8.9%) | 70 % | 49 |
| Grain | Strzegom Monachijski typ I | 2 kg (35.7%) | 79 % | 16 |
| Grain | Strzegom Monachijski typ II | 2 kg (35.7%) | 79 % | 22 |
| Grain | Płatki owsiane | 0.1 kg (1.8%) | 85 % | 3 |
| Grain | Aromatic Malt | 0.5 kg (8.9%) | 78 % | 51 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 9 % |
| Aroma (end of boil) | Tradition | 25 g | 15 min | 5.5 % |
| Aroma (end of boil) | Hersbrucker | 50 g | 15 min | 3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------------|------|--------|--------|------------|
| WLP029 - German Ale/Kölsch Yeast | Ale | Liquid | 40 ml | White Labs |