

Staruchy! v.2

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **46**
- SRM **14.6**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.9 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **18.4 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|-----------------|-------|------|
| Grain | Pilzneński | 3.5 kg (75.9%) | 81 % | 4 |
| Grain | red active viking malt | 0.93 kg (20.2%) | 79 % | 35 |
| Grain | Carafa special III 1300-1500 | 0.08 kg (1.7%) | 70 % | 1400 |
| Grain | Strzegom Karmel 300 | 0.1 kg (2.2%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | lunga | 35 g | 60 min | 9.8 % |
| Aroma (end of boil) | halertauer mittelfruh | 40 g | 10 min | 3.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------|------|--------|---------|------------|
| Wyeast - Kolsch | Ale | Liquid | 1000 ml | --- |