

Stare piwsko

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **37**
- SRM **6.3**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **52 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.3 kg (75.7%)	90 %	5
Grain	Weyermann - Carapils	1 kg (14.3%)	85 %	4
Grain	Strzegom Wiedeński	0.3 kg (4.3%)	85 %	10
Grain	Strzegom Monachijski typ I	0.3 kg (4.3%)	85 %	16
Grain	Special B Malt	0.1 kg (1.4%)	85 %	315

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Strisselspalt	50 g	25 min	1.8 %
Boil	Tomyski	30 g	25 min	3.8 %
Boil	Strisselspalt	30 g	5 min	1.8 %
Boil	Magnum	25 g	45 min	13.5 %
Boil	Magnum	5 g	5 min	13.5 %
Whirlpool	Strisselspalt	20 g	5 min	1.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Slant	500 ml	White Labs