

American stout piwopiweczko

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **84**
- SRM **34.6**
- Style **American Stout**

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 **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **55 C**, Time **1 min**
- Temp **65 C**, Time **60 min**
- Temp **67 C**, Time **10 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (56.6%)	80 %	5
Grain	Monachijski	1.5 kg (28.3%)	80 %	16
Grain	Caraaroma	0.1 kg (1.9%)	78 %	400
Grain	Czekoladowy	0.3 kg (5.7%)	60 %	788
Grain	Jęczmień palony	0.3 kg (5.7%)	55 %	985
Grain	Strzegom pszenica prażona	0.1 kg (1.9%)	70 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Boil	Horizon	30 g	30 min	10 %
Boil	Cascade	15 g	15 min	6 %
Boil	Horizon	15 g	5 min	10 %
Aroma (end of boil)	Cascade	15 g	0 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
US 05	Ale	Slant	200 ml	---