

American Bitter

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **47**
- SRM **14.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Strzegom Karmel 300	0.5 kg (8.3%)	70 %	299
Grain	Strzegom Bursztynowy	0.5 kg (8.3%)	70 %	49

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	25 g	60 min	7 %
Boil	Centennial	10 g	60 min	10.5 %
Aroma (end of boil)	East Kent Goldings	20 g	10 min	5.1 %
Aroma (end of boil)	Amarillo	20 g	10 min	9.5 %
Aroma (end of boil)	Citra	20 g	5 min	12 %
Aroma (end of boil)	Centennial	20 g	5 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	200 ml	Fermentum Mobile