

a

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **42**
- SRM **7.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.6 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **10.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.2 kg (64.7%)	79 %	6
Grain	Strzegom Pilzneński	0.5 kg (14.7%)	80 %	4
Grain	Aromatic Malt	0.5 kg (14.7%)	78 %	51
Grain	Płatki owsiane	0.2 kg (5.9%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	15 g	60 min	9.8 %
Whirlpool	Equinox	10 g	20 min	13.5 %
Whirlpool	Centennial	10 g	20 min	9.5 %
Whirlpool	Zythos	10 g	20 min	9.2 %
Dry Hop	Equinox	10 g	2 day(s)	13.5 %
Dry Hop	Centennial	10 g	2 day(s)	9.5 %
Dry Hop	Zythos	10 g	2 day(s)	9.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	fermentis

Extras

Type	Name	Amount	Use for	Time
Water Agent	kwas mlekowy	6 g	Mash	0 min
Water Agent	gips piwowarski	4 g	Boil	0 min
Fining	mech	5 g	Boil	10 min