

Breakfast Bitter

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **30**
- SRM **11.8**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **5 liter(s)**
- Trub loss **0 %**
- Size with trub loss **5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **3 liter(s)**
- Total mash volume **3.9 liter(s)**

Steps

- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **3 liter(s)** of strike water to **68.1C**
- Add grains
- Keep mash **25 min** at **62C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **3.9 liter(s)** of **76C** water or to achieve **6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	0.75 kg (86.2%)	79 %	6
Grain	Crystal II 200	0.05 kg (5.7%)	71.1 %	200
Grain	Strzegom Bursztynowy	0.04 kg (4.6%)	72 %	50
Grain	Strzegom Karmel 600	0.03 kg (3.4%)	68 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	7.5 g	60 min	4.5 %
Boil	East Kent Goldings	5 g	30 min	4.5 %
Aroma (end of boil)	Fuggles	2.5 g	5 min	4.5 %
Whirlpool	Fuggles	2.5 g	30 min	4.5 %
Dry Hop	Fuggles	3.75 g	3 day(s)	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	2.88 g	Safale

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	1.25 g	Boil	15 min
Water Agent	Gips piwowarski	0.75 g	Mash	60 min