

Special Bitter

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **34**
- SRM **12.5**
- Style **Special/Best/Premium Bitter**

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 **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.1 liter(s) / kg**
- Mash size **23.8 liter(s)**
- Total mash volume **29.6 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **23.8 liter(s)** of strike water to **72.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **9.8 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	3.5 kg (60.2%)	80 %	5
Grain	Strzegom Monachijski typ II	1.5 kg (25.8%)	79 %	22
Grain	Biscuit Malt COOKIE	0.5 kg (8.6%)	79 %	45
Grain	Strzegom Karmel 100	0.25 kg (4.3%)	75 %	100
Grain	Strzegom Czekoladowy ciemny	0.06 kg (1%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	15 g	60 min	12.7 %
Boil	East Kent Goldings	25 g	30 min	5 %
Boil	East Kent Goldings	25 g	15 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Slant	500 ml	Fermentum Mobile