

Górki

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **29**
- SRM **6.4**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **26 liter(s)**
- Total mash volume **31.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **26 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **0 min** at **78C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (86.5%)	80 %	5
Grain	Viking Vienna Malt	0.5 kg (9.6%)	79 %	7
Grain	Strzegom Karmel 150	0.2 kg (3.8%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Polaris	10 g	60 min	19.8 %
Boil	Polaris	20 g	5 min	19.8 %
Aroma (end of boil)	Polaris	20 g	0 min	19.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Us-04	Ale	Dry	11 g	Fermentis