Koźlak wędzony

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **49**
- SRM **8.7**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **23.1 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(63.3%)*	65 %	5
Grain	Wędzony torfemViking Malt	1 kg *(12.7%)*	65 %	10
Liquid Extract	Miód Gryczany (Buckwheat Honey)	0.9 kg *(11.4%)*	65 %	40
Grain	Pszeniczny	1 kg *(12.7%)*	65 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Aroma (end of boil)	Hallertau Blanc	30 g	5 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	---