

## Magicae Nigrae 4.0

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **24**
- SRM **35.3**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **18 %**
- Size with trub loss **13 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **16 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15.5 liter(s)**

### Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **80 C**, Time **1 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **80C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **16 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Monachijski II	3 kg (85.1%)	80 %	23
Grain	Weyermann - Carafa I	0.3 kg (8.5%)	80 %	900
Grain	Weyermann - Zakwaszający	0.125 kg (3.5%)	80 %	5
Grain	Weyermann - Palony Jęczmień	0.1 kg (2.8%)	80 %	1150

Słody palone wrzucone na drugą przerwę.

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus-Zeus (USA - 2018)	10 g	60 min	15.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Other	Woda zaciernaie (olsztyńska - Nagórki)	12000 g	Mash	61 min
Other	Woda wysładzanie (olsztyńska - Nagórki)	8000 g	Mash	61 min
Water Agent	Kwasfosforowy (woda do wysładzania)	3 g	Mash	61 min
Flavor	Laktoza	250 g	Boil	15 min
Flavor	Ksylitol	150 g	Boil	15 min
Fining	Whirlfolc	1 g	Boil	5 min
Water Agent	Witamina C	2 g	Secondary	7 day(s)