

MAMS

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **13**
- SRM **2.3**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **70 C**, Time **40 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3 kg (100%)	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	15 g	60 min	3.8 %
Boil	Lomik	15 g	30 min	3.8 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	0 min	4 %
Whirlpool	Oktawia	30 g	0 min	7.1 %
Dry Hop	Lublin (Lubelski)	20 g	3 day(s)	4 %
Dry Hop	Oktawia	20 g	3 day(s)	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Liquid	500 ml	FM