

#202 Wielozbożowe

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **24**
- SRM **4**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **6 %**
- Size with trub loss **21.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **23 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **44 C**, Time **10 min**
- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **10 min** at **44C**
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **23 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	VM pilzneński	1 kg (25%)	80 %	3.9
Grain	VM pszeniczny	1 kg (25%)	83 %	4.5
Grain	VM owsiany	1 kg (25%)	61 %	5.5
Grain	VM żytni	1 kg (25%)	85 %	9

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga PL 2022 szyszka	10 g	60 min	11.5 %
Aroma (end of boil)	Amora Preta PL 2022	20 g	10 min	11.2 %
Dry Hop	Amora Preta PL 2022	30 g	7 day(s)	11.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	80 ml	Fermentum Mobile