

Dubbel-tówka

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **17**
- SRM **25.3**
- Style **Belgian Dubbel**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **8 %/h**
- Boil size **27.2 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **28.8 liter(s)**

Steps

- Temp **45 C**, Time **15 min**
- Temp **52 C**, Time **15 min**
- Temp **65 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **15 min** at **52C**
- Keep mash **70 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.2 kg (54.5%)	80 %	5
Grain	Monachijski Ciemny	1.5 kg (19.5%)	80 %	30
Grain	cooke, viking malt	0.6 kg (7.8%)	80 %	70
Grain	Caraaroma	0.4 kg (5.2%)	78 %	400
Sugar	Cukier kandyzowany, brązowy	0.5 kg (6.5%)	78.3 %	400
Grain	Karmelowy Jasny 30EBC	0.5 kg (6.5%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	40 g	60 min	4.5 %
Boil	Saaz (Czech Republic)	10 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 3522 Belgian Ardennes	Ale	Slant	500 ml	Wyeast Labs