

# Belgian Dubbel #1 - Browar na Wyżynie

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **25**
- SRM **16.7**
- Style **Belgian Dubbel**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **20 %/h**
- Boil size **27.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **27.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale Viking Malt	4 kg (74.1%)	80 %	6
Grain	karmelowy 150 - Viking Malt	0.5 kg (9.3%)	75 %	150
Grain	Château Special B Castle Malting	0.4 kg (7.4%)	77 %	300
Sugar	cukier kandyzowany	0.5 kg (9.3%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka (Polishhops) - granulata	25 g	100 min	7.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM25 Klasztorna medytacja	Ale	Liquid	1000 ml	---

## Extras

Type	Name	Amount	Use for	Time
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Water Agent	gips	4 g	Mash	60 min
Water Agent	chlorek wapnia	4 g	Mash	60 min
Water Agent	kwask fosforowy 75% - zacier	5 g	Mash	60 min
Water Agent	kwask fosforowy 75% - wysladzanie	2 g	Mash	60 min
Water Agent	cukier kandyzowany	500 g	Boil	15 min
Fining	Mech irlandzki	2 g	Boil	15 min

## Notes

- <https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=11R89YB>  
 Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
 57.8 0.0 131.0 74.1 90.8 0.054

Mash pH \*: 5.27

SO42-/Cl- ratio: 1.2 Balanced

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