

# Belgian Dubbel

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **32**
- SRM **17.9**
- Style **Belgian Dubbel**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.7 liter(s)**
- Total mash volume **30.5 liter(s)**

## Steps

- Temp **35 C**, Time **30 min**
- Temp **45 C**, Time **15 min**
- Temp **55 C**, Time **15 min**
- Temp **64 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **23.7 liter(s)** of strike water to **37.1C**
- Add grains
- Keep mash **30 min** at **35C**
- Keep mash **15 min** at **45C**
- Keep mash **15 min** at **55C**
- Keep mash **90 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **25.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4.1 kg (60.5%)	85 %	7
Grain	Strzegom Wiedeński	1.1 kg (16.2%)	79 %	10
Grain	Biscuit Malt	0.5 kg (7.4%)	79 %	45
Grain	Special B Malt	0.35 kg (5.2%)	65.2 %	315
Grain	Weyermann Caramunich 3	0.3 kg (4.4%)	76 %	150
Grain	Pszeniczny	0.25 kg (3.7%)	85 %	4
Grain	Weyermann - Carawheat	0.1 kg (1.5%)	77 %	97
Grain	Carafa	0.08 kg (1.2%)	70 %	664

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	7.7 %
Boil	Cascade	30 g	15 min	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Belgian Strong Ale	Ale	Liquid	125 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Flavor	Cukier kandyzowany	500 g	Boil	15 min
Flavor	Rodzynki	100 g	Boil	15 min

## Notes

- Zacieranie:  
35 st.: Wiedeński +Pale Ale  
45 st.: -  
55 st.: -  
64 st.: Pszeniczny, Biscuit, Caramunich, Carawheat, Special B  
78 st.: filtracja -> dodana Carafa ekstrahowana małą ilością zimnej wody i ekstrakt wlany przed filtracją

Fermentacja burzliwa ok. 10 dni, 20 st.C,  
Fermentacja cicha: 15 dni, 20 st.C,  
Refermentacja; glukoza lub ekstrakt jasny 10 g/l  
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