

# 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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