

# 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 |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|             |                                      |       |      |        |
|-------------|--------------------------------------|-------|------|--------|
| Water Agent | gips                                 | 4 g   | Mash | 60 min |
| Water Agent | chlorek wapnia                       | 4 g   | Mash | 60 min |
| Water Agent | kwask fosforowy 75%<br>- zacier      | 5 g   | Mash | 60 min |
| Water Agent | kwask fosforowy 75%<br>- 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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