

## #31 Kooperacyjny dubbel

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **19**
- SRM **11.8**
- Style **Belgian Dubbel**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.2 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **29.9 liter(s)**
- Total mash volume **35.9 liter(s)**

### Steps

- Temp **63 C**, Time **25 min**
- Temp **72 C**, Time **45 min**

### Mash step by step

- Heat up **29.9 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **25 min** at **63C**
- Keep mash **45 min** at **72C**
- Sparge using **2.3 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilsneński 6-rzędowy	3.5 kg (55.7%)	80 %	5
Grain	Strzegom Monachijski typ II	1.5 kg (23.9%)	79 %	22
Grain	Abbey Malt Weyermann	0.5 kg (8%)	75 %	45
Grain	Special B Malt	0.115 kg (1.8%)	65.2 %	315
Sugar	cukier kandyzowany	0.3 kg (4.8%)	100 %	100
Grain	Viking Pale Ale malt	0.37 kg (5.9%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	25 g	60 min	5.1 %
Boil	East Kent Goldings	25 g	20 min	5.1 %

### Yeasts

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