

Quadrupel

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **28**
- SRM **23.1**
- Style **Belgian Dark Strong Ale**

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 **5 %/h**
- Boil size **24.7 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.3 liter(s)**
- Total mash volume **31 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **23.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (47.7%)	85 %	7
Grain	Monachijski	3 kg (35.8%)	80 %	16
Grain	Caramunich® typ I	0.2 kg (2.4%)	73 %	80
Grain	Special B Malt	0.2 kg (2.4%)	65.2 %	315
Grain	Caramel	0.2 kg (2.4%)	30 %	10
Grain	Weyermann przeniczny czekoladowy	0.15 kg (1.8%)	5 %	1000
Sugar	Brown Sugar, Dark	0.32 kg (3.8%)	100 %	99
Sugar	Candi Sugar, Amber	0.32 kg (3.8%)	78.3 %	148

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Fermentum Mobile FM21 Odkrycie sezonu	Wheat	Slant	1000 ml	Fermentum Mobile
---	-------	-------	---------	------------------