

# Quad

- Gravity **24 BLG**
- ABV **11 %**
- IBU **29**
- SRM **19**
- Style **Belgian Dark Strong Ale**

## Batch size

- Expected quantity of finished beer **18.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **25.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **29.2 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **61.5C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **25.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (46%)	81 %	4
Grain	Pale Ale	2 kg (23%)	80 %	5
Grain	Wiedeński	0.6 kg (6.9%)	79 %	10
Grain	Pszeniczny	0.39 kg (4.5%)	85 %	4
Grain	Abbey Castle	0.35 kg (4%)	80 %	45
Grain	Caramunich Typ II Weyermann	0.3 kg (3.5%)	73 %	120
Grain	Special B Malt	0.25 kg (2.9%)	65.2 %	315
Sugar	Candi Sugar, Dark	0.5 kg (5.8%)	78.3 %	200
Sugar	Demerara Sugar	0.3 kg (3.5%)	100 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	50 g	60 min	5.1 %
Boil	East Kent Goldings	35 g	20 min	5.1 %
Boil	East Kent Goldings	15 g	5 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM26 Belgijskie Pagórki	Ale	Slant	200 ml	Fermentum Mobile

## Notes

- 1,5 ml kwasu, 10 ml chlorku wapnia. Do wody do wystadzania 1ml kwasu.  
*Apr 22, 2018, 11:19 AM*