

# Coffee/Chocolate FES

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **27**
- SRM **43.3**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **26.9 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (63.3%)	80 %	5
Grain	Monachijski	1 kg (12.7%)	80 %	16
Grain	Weyermann - Carafa II	0.75 kg (9.5%)	70 %	837
Grain	Jęczmień palony	0.3 kg (3.8%)	55 %	985
Grain	Płatki owsiane	0.4 kg (5.1%)	85 %	3
Sugar	Candi Sugar, Dark	0.2 kg (2.5%)	78.3 %	542
Grain	Abbey Malt Weyermann	0.25 kg (3.2%)	75 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - American Ale II	Ale	Slant	100 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Flavor	10l - kawa, ziarna	50 g	Secondary	7 day(s)
Flavor	10l - kakao, ziarna	200 g	Secondary	7 day(s)