

# FES warka75

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **33**
- SRM **22**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **44 liter(s)**
- Trub loss **8 %**
- Size with trub loss **47.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **27 %/h**
- Boil size **73.2 liter(s)**

## Mash information

- Mash efficiency **91 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **26.5 liter(s)**
- Total mash volume **34.1 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **26.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **54.3 liter(s)** of **76C** water or to achieve **73.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	2.3 kg (30.4%)	81 %	4
Grain	Maris Otter Crisp	2.4 kg (31.7%)	83 %	6
Grain	Monachijski typ II 20-25 EBC Weyermann	1.3 kg (17.2%)	80 %	20
Grain	Jęczmień palony	0.3 kg (4%)	55 %	1000
Grain	Fawcett - Pszeniczny Czekoladowy	0.17 kg (2.2%)	73 %	1001
Grain	Fawcett - Pale Chocolate	0.3 kg (4%)	71 %	600
Grain	Special B Malt	0.3 kg (4%)	65.2 %	315
Grain	Carahell	0.2 kg (2.6%)	77 %	26
Grain	Strzegom Czekoladowy jasny	0.3 kg (4%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	60 min	15.5 %

Boil	Fusion UK	25 g	60 min	4.57 %
------	-----------	------	--------	--------