

## FES 26l. "Ho, Ho, Ho"

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **35**
- SRM **36.3**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

### Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **2.66 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28.9 liter(s)**

### Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **72.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	płatki jęczmienne	0.55 kg (7%)	--- %	3
Grain	Pale Ale OPTIMA 5,5-7,5	6 kg (76%)	--- %	6.5
Grain	jęczmień palony Weyermann	0.35 kg (4.4%)	--- %	1150
Grain	caraaroma Weyermann	0.55 kg (7%)	--- %	350
Grain	Strzegom Czekoladowy jasny	0.26 kg (3.3%)	68 %	400
Grain	carafa III Special Weyermann	0.18 kg (2.3%)	--- %	1400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	50 min	11 %
Boil	East Kent Goldings	50 g	50 min	5.8 %
W oryginalnym przepisie Doris 35g Aurora				
Boil	East Kent Goldings	50 g	10 min	5.8 %
W oryginalnym przepisie Doris 45g Styrian Goldings				

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	13.14 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Fining	whirfloe T	2 g	Boil	7 min