

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 |