

EXAMPLE DATA · Critical example · fictional site and made-up answers. Not a real assessment.

HeatProtectionSolutions · heatprotectionsolutions.com

HEAT-RISK READINESS REPORT

Example metal-processing plant, Rotterdam (fictional)

One site · as answered on 15 October 2026 · reference HRR-EXAMPLE-CRITICAL

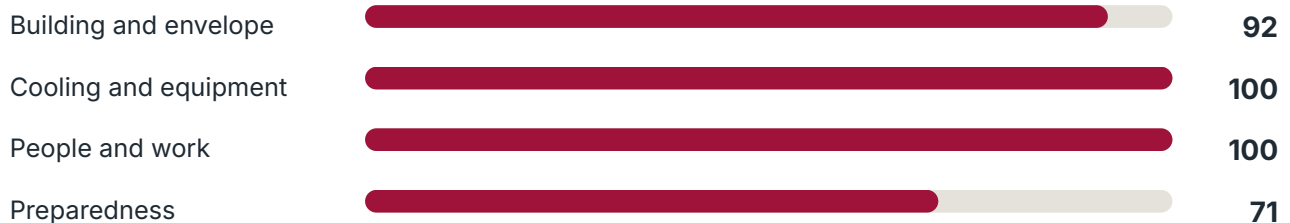


HEAT-RISK LEVEL

Critical

Many risk factors combine. Treat heat as a priority for this site now.

0–24 Low · 25–49 Moderate · 50–74 High · 75–100 Critical. A higher score means more heat-risk factors at this site.



In this report: executive brief · findings per answer · your 30-day plan · options checklist with supplier questions · employer heat duties for your site · your answers, method and sources.

Scores sites, not people. Not engineering, legal or health advice. The score is calculated only from your answers with fixed, published weights. No benchmarks, cost or return figures, or vendor rankings.

Executive brief

ONE PAGE · SHARE WITH YOUR TEAM

Heat-risk level: Critical, driven mainly by cooling and equipment.

Example metal-processing plant, Rotterdam (fictional) scores 92 out of 100. Many risk factors combine. Treat heat as a priority for this site now. The biggest gap is **site use adds heat or sensitivity**, followed by roof absorbs a lot of sun and large glazed areas. Preparedness is the strongest area (71/100).

01

MAJOR · BUILDING AND
ENVELOPE

Site use adds heat or sensitivity

Process heat from ovens, furnaces, steam or machinery adds to the heat the building takes in, so some work zones can be far hotter than the building average.

Your answer:
"Manufacturing or process plant"

02

MAJOR · BUILDING AND
ENVELOPE

Roof absorbs a lot of sun

Dark flat roofs absorb most of the sun that hits them and get very hot, which heats the space below and ages the roofing faster.

Your answer: "Dark flat roof (bitumen, EPDM, dark metal)"

03

MAJOR · BUILDING AND
ENVELOPE

Large glazed areas

Large glazed areas let direct sun in, and rooms behind them can overheat quickly, even with cooling.

Your answer: "A lot (glass façades, rooflights, glass entrance)"

THE ONE NEXT MOVE · THIS WEEK

List the main internal heat sources and heat-sensitive areas (equipment rooms, mezzanines, stock, waiting areas) on a floor plan.

Timing: Before finalising new cooling capacity, ask the designer to account for reductions in sun, roof and equipment heat first.

Findings, answer by answer

Every finding below follows from the answer you gave. Severity compares your answer to the most at-risk answer for that question.

Building and envelope

92/100
MAJOR
What kind of site is it?

"Manufacturing or process plant"

Process heat from ovens, furnaces, steam or machinery adds to the heat the building takes in, so some work zones can be far hotter than the building average.

MAJOR
When was the main building built or last deeply renovated?

"Before 1990"

Older roofs, walls and glazing generally let more summer heat in and are worth a closer look, especially the roof above occupied floors.

MAJOR
What is the main roof like?

"Dark flat roof (bitumen, EPDM, dark metal)"

Dark flat roofs absorb most of the sun that hits them and get very hot, which heats the space below and ages the roofing faster.

MAJOR
How much glass is in the walls and roof?

"A lot (glass façades, rooflights, glass entrance)"

Large glazed areas let direct sun in, and rooms behind them can overheat quickly, even with cooling.

NOTABLE
Do sunny façades (south, south-west, west) have outside shading?

"Only blinds or film on the inside"

Inside blinds help with glare but much of the sun's heat is already inside once it passes the glass.

Cooling and equipment

100/100
MAJOR
Are there significant heat sources inside (ovens, furnaces, steam, compressors, server racks)?

"Yes, with hot surfaces, pipes or valves partly uninsulated"

Hot, uninsulated surfaces radiate heat straight into the workspace and at people nearby. Cooling the whole room is a costly way to fight heat at the source.

MAJOR
How are the main work areas cooled?

"Ventilation only, no cooling"

Without cooling, indoor temperatures track outdoor peaks, and multi-day heatwaves build heat up day after day.

MAJOR
What happens on site on the hottest days?

"Complaints, extra breaks or slower work"

People are already affected. This is a signal for the risk assessment (RI&E) and for measures before next summer.

MAJOR**Is cooling and ventilation checked before each summer?**

"No, don't know, or there is no cooling"

Without a spring check, equipment that fails on the hottest day is a real possibility, and nobody may know who to call.

People and work**100/100****MAJOR****Does work involve outdoor tasks or heavy physical effort?**

"Yes, regularly"

Physical effort and sun exposure raise heat strain faster than desk work. Measures on work, rest, shade and water are essential on hot days.

MAJOR**Are people on site who may be more sensitive to heat (for example older staff or visitors, pregnant workers, young workers, people with health conditions, new or temporary staff)?**

"Yes, regularly or many"

Some groups need earlier and extra measures. This is about planning for the site, not judging individuals.

Preparedness**71/100****MAJOR****Do you have a heat plan with clear triggers (who does what, from which temperature or KNMI warning)?**

"No"

Without a plan, decisions are made under pressure on the hottest day.

NOTABLE**Do you measure indoor temperatures in the hottest areas?**

"Spot checks or room thermostats only"

Thermostats sit where it is comfortable, not where it is hottest.

NOTABLE**Have you checked the site's local heat exposure (for example in the Klimaateffectatlas)?**

"Not checked"

The site's local heat exposure is unknown. It takes a few minutes to check in the Klimaateffectatlas.

Timing

Replacing or expanding cooling or HVAC. Replacing cooling is the moment to first reduce heat gains, so the new system is not sized for heat you could avoid.

Your 30-day plan

Built only from the gaps in your answers, highest severity first. Tick items off as you go.

WEEK	ACTIONS
Week 1	☐ Site use adds heat or sensitivity: List the main internal heat sources and heat-sensitive areas (equipment rooms, mezzanines, stock, waiting areas) on a floor plan. ☐ Roof absorbs a lot of sun: Note the roof colour, material and age, and when the roof is due for maintenance.
Week 2	☐ Large glazed areas: Mark the rooms with large glass areas and when they get direct sun. ☐ Site use adds heat or sensitivity: Agree which areas get priority on a hot day.
Week 3	☐ Heat released inside by equipment: Walk the site and list hot surfaces, pipes, valves and equipment that are uninsulated or where insulation was not refitted after maintenance. ☐ Limited cooling capacity: List the areas without adequate cooling and how many people work there.
Week 4	☐ Review the draft heat plan with staff representatives and agree the triggers. ☐ Before finalising new cooling capacity, ask the designer to account for reductions in sun, roof and equipment heat first.

Options checklist

Categories worth exploring for your gaps, in order of severity. Not product recommendations, rankings or endorsements. Ask for at least two options.

Site use adds heat or sensitivity **MAJOR**

- ☐ Map heat sources and sensitive zones
- ☐ Zoning: move heat-intensive tasks or sensitive stock away from the hottest areas

Roof absorbs a lot of sun **MAJOR**

- ☐ Reflective (cool-roof) coating or light covering, ideally timed with roof maintenance
- ☐ Green or blue-green roof where structure allows
- ☐ Extra roof insulation at the next renewal

Questions to ask a supplier:

- What is the aged (after weathering and dirt) solar reflectance and thermal emittance of the product, and how was it tested?
- How do you prepare our existing roof, and how does the product affect the roofing warranty?
- How does it work with existing or planned solar panels, and is there any winter heating penalty?

Large glazed areas MAJOR

- ☐ Solar-control film or glazing (check compatibility with existing double glazing)
- ☐ External screens, awnings or louvres
- ☐ Rooflight shading or coatings

Questions to ask a supplier:

- What is the reduction in solar heat gain (g-value) versus the loss of daylight (light transmittance)?
- Is the film or glazing compatible with our existing double or triple glazing and its warranty?

Heat released inside by equipment MAJOR

- ☐ Insulation (including removable jackets) on hot pipes, valves and flanges
- ☐ Radiant heat shields or local extraction at hot processes
- ☐ Running heat-intensive processes at cooler hours

Questions to ask a supplier:

- Can you calculate the surface-temperature and heat-loss reduction per item (for example under EN ISO 12241)?
- Can our own maintenance staff remove and refit the insulation without damage?
- How do you prevent corrosion under insulation?

Limited cooling capacity MAJOR

- ☐ Night ventilation or free cooling to flush heat out
- ☐ Fans or local cooling for specific zones
- ☐ Cooling capacity review, after reducing heat gains first

Questions to ask a supplier:

- How does the system perform on a design hot day for our region, not just an average summer day?
- How much capacity could we avoid if we first reduce sun, roof and equipment heat?
- For evaporative or adiabatic cooling: how are water treatment and Legionella prevention handled?

Heat already disrupts the site MAJOR

- ☐ Peak-day operating rules (shifts, schedules, set-points)
- ☐ Temperature alarms on critical rooms and stock

Questions to ask a supplier:

- Are you independent, or tied to a specific product? Do you show more than one option?

Outdoor or physical work in heat MAJOR

- ☐ Shaded rest areas and water points
- ☐ Adjusted working hours on hot days
- ☐ Heat-stress measurement (WBGT, ISO 7243) in the hottest work zones

No heat plan with triggers MAJOR

- ☐ One-page heat plan with triggers
- ☐ Staff briefing before summer

Building envelope may let heat in MAJOR

- ☐ Roof and wall insulation upgrade (check at the next renovation)
- ☐ Thermal imaging survey of roof and façades

Cooling and ventilation not checked before summer MAJOR

- ☐ Planned maintenance contract with a pre-summer check
- ☐ Monitoring or alerts on cooling plant

People more sensitive to heat on site MAJOR

- ☐ Occupational health advice
- ☐ Flexible work options and cooler workplaces for those who need them

Sun on unshaded façades NOTABLE

- ☐ External screens or awnings on south and west façades
- ☐ Fixed louvres, canopies or trees for shade

Questions to ask a supplier:

- Can the shading be controlled automatically by sun and wind, and how is it maintained?

Indoor heat not measured NOTABLE

- ☐ Temperature loggers or building sensors (with open data export)
- ☐ Thermal imaging survey

Questions to ask a supplier:

- Do the sensors measure only air temperature, or also radiant heat or WBGT in work zones?
- Do we own the raw data with an open export (CSV, BACnet, Modbus, MQTT) and no lock-in?

Local heat exposure unknown or high NOTABLE

- ☐ Greening or unpaving around the site
- ☐ Shade on parking areas, loading bays and outdoor work areas

Your answers and how the score works

#	QUESTION	YOUR ANSWER	POINTS
1	What kind of site is it?	Manufacturing or process plant	3/3
2	When was the main building built or last deeply renovated?	Before 1990	2/2
3	What is the main roof like?	Dark flat roof (bitumen, EPDM, dark metal)	3/3
4	How much glass is in the walls and roof?	A lot (glass façades, rooflights, glass entrance)	3/3
5	Do sunny façades (south, south-west, west) have outside shading?	Only blinds or film on the inside	1/2

#	QUESTION	YOUR ANSWER	POINTS
6	Are there significant heat sources inside (ovens, furnaces, steam, compressors, server racks)?	Yes, with hot surfaces, pipes or valves partly uninsulated	3/3
7	How are the main work areas cooled?	Ventilation only, no cooling	3/3
8	What happens on site on the hottest days?	Complaints, extra breaks or slower work	3/3
9	Is cooling and ventilation checked before each summer?	No, don't know, or there is no cooling	2/2
10	Does work involve outdoor tasks or heavy physical effort?	Yes, regularly	3/3
11	Are people on site who may be more sensitive to heat (for example older staff or visitors, pregnant workers, young workers, people with health conditions, new or temporary staff)?	Yes, regularly or many	2/2
12	Do you have a heat plan with clear triggers (who does what, from which temperature or KNMI warning)?	No	3/3
13	Do you measure indoor temperatures in the hottest areas?	Spot checks or room thermostats only	1/2
14	Have you checked the site's local heat exposure (for example in the Klimaateffectatlas)?	Not checked	1/2
15	Is anything coming up in the next 6–24 months?	Replacing or expanding cooling or HVAC	0/0

Score = points ÷ maximum points × 100 across 14 scored questions (the timing question is not scored). Pillar scores use the same rule per pillar. Gaps are ranked by the share of the maximum for that question. The same method runs in the free self-check on heatprotectionsolutions.com, so scores match. Weights are judgement-based relative weights, not measured data. Scores sites, not people. Not engineering, legal or health advice.

Employer heat duties for this site

General awareness of Dutch rules, selected for your answers, not legal advice. Check the current texts, your sector's arbocatalogus, and ask your arbodienst or a legal adviser for your situation.

- ☐ Arbowet art. 3: pursue a working-conditions policy that protects workers' health and safety, including in heat.
ALWAYS
- ☐ Arbowet art. 5: the risk inventory and evaluation (RI&E) should cover heat where relevant, with a plan of action (plan van aanpak).
ALWAYS
- ☐ Arbobesluit art. 6.1 (Temperatuur) and 6.2 (Luchtverversing): the temperature and ventilation at the workplace must not harm health. There is no single legal maximum workplace temperature in the Netherlands; the duty is to assess and act on the risk.
ALWAYS
- ☐ Arbowet art. 8: inform and instruct workers about heat risks and the measures on site.
ALWAYS

- ☐ Arbobesluit art. 6.4 (Weren van zonlicht): workplaces should be protectable against nuisance from direct sunlight where needed.
BECAUSE OF YOUR GLAZING OR SHADING ANSWERS
- ☐ Adjust work, rest and schedules on hot days, provide shade and drinking water, and check your sector's arbocatalogus for agreed heat measures (for example in construction or agriculture).
BECAUSE WORK INCLUDES OUTDOOR OR PHYSICAL TASKS
- ☐ Arbowet art. 4: adapt work to the personal characteristics of workers where needed.
BECAUSE SENSITIVE PEOPLE ARE ON SITE
- ☐ Arbobesluit art. 1.40–1.42a: specific RI&E, work-organisation and information duties for pregnant and breastfeeding workers. Young workers also have specific protections in the Arbobesluit.
BECAUSE SENSITIVE PEOPLE ARE ON SITE
- ☐ Involve the company doctor or occupational health service (Arbowet art. 14) and offer workers access to them; update the RI&E with what happened on hot days.
BECAUSE HEAT ALREADY AFFECTS WORK
- ☐ Involve the works council (ondernemingsraad) or staff representatives where relevant (WOR art. 27 consent right on working-conditions rules).
ALWAYS

On hot days, follow KNMI weather warnings. KNMI defines a heatwave (hittegolf) at De Bilt as at least five consecutive days of 25 °C or more, of which at least three of 30 °C or more. The RIVM Nationaal Hitteplan describes the national heat-warning approach.

Sources

- Arbowet and Arbobesluit (wetten.overheid.nl): <https://wetten.overheid.nl/BWBR0010346>
- Arbobesluit, hoofdstuk 6 and art. 1.40–1.42a: <https://wetten.overheid.nl/BWBR0008498>
- RIVM, Nationaal Hitteplan: <https://www.rivm.nl/hitte/nationaal-hitteplan>
- KNMI, heatwave definition (hittegolf): <https://www.knmi.nl/kennis-en-datacentrum/uitleg/hittegolf>
- KNMI'23 climate scenarios: <https://www.knmi.nl/klimaat/scenarios>
- Klimaateffectatlas (heat-stress maps): <https://www.klimaateffectatlas.nl/nl/>
- EU-OSHA, Heat at work: guidance for workplaces: <https://osha.europa.eu/en/publications/heat-work-guidance-workplaces>
- ISO 7243:2017, heat stress assessment with the WBGT index: <https://www.iso.org/standard/67188.html>
- NIOSH (2016), Occupational exposure to heat and hot environments: <https://www.cdc.gov/niosh/docs/2016-106/>
- IEA, The Future of Cooling: <https://www.iea.org/reports/the-future-of-cooling>
- EEA, European Climate Risk Assessment (2024): <https://www.eea.europa.eu/publications/european-climate-risk-assessment>

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