

NOW ONLINE!
The new ROCKASSIST ASIA calculation tool – free of charge!

ROCKASSIST ASIA

The online calculation program
for technical insulation





Expert
Knowledge
Inside



ROCKASSIST ASIA

online calculation program for calculating the ideal insulation thickness, maximise energy efficiency and thus reduce energy costs and CO₂ emissions.

ROCKASSIST ASIA: The Online Expert Tool for Technical Insulation

Jam-Packed with Expert Skills and Knowledge

ROCKASSIST ASIA is a unique calculation program available free of charge from ROCKWOOL Technical Insulation. It enables you to calculate the ideal insulation thickness for technical installations and thus maximise energy efficiency and reduce energy costs and CO₂ emissions.

This expert tool puts the extensive consulting skills and experience in the field of technical insulation at your fingertips that only ROCKWOOL Technical Insulation can offer.

In this brochure you will learn about our free customer-oriented service which gives you an easy way of calculating all of the important factors in technical insulation – from personal protection and heat loss to cooling of the media inside the equipment. It includes multiple analyses of various parameters, plausibility checks and ProRox product recommendations.

ROCKASSIST ASIA gives you all the options – no matter whether you just want to make a quick initial estimate or you're making a final decision on what the ideal insulation solution is, complete with an authoritative report on the results. Take advantage of them!

A Calculation Program for Everyone and Everything

Anyone involved in the field of energy efficiency or technical insulation in any way can use ROCKASSIST ASIA for their specific purposes – it's a benefit to engineers, insulation installers, mechanical contractors, dealers, and plant operators alike. It is useful for providing your customers with detailed advice or making an initial estimate of the energy efficiency to be gained by insulating a technical installation.

ROCKASSIST ASIA is a helpful expert tool which pays off to use regularly and intensively for the following professionals, fields and company divisions:

- Mechanical engineer
- Purchasing manager
- Project manager
- Maintenance manager
- Consultants
- Managing director
- External sales personnel
- Internal sales staff
- Plant owner
- Engineer (EPC)
- Mechanical contractor
- Insulation contractor
- Distributor

Visit www.rockassist-asia.com to find out more



Register online now at
www.rockassist-asia.com
and start calculation
for free!

ROCKASSIST ASIA – only true experts can offer benefits like these:

- Free thermotechnical calculation program
- Calculations in conformity with ASTM C680-10
- Automatically recommends the most optimal product solution
- Online-based tool – no installation necessary
- Simple intuitive operation
- Wide range of calculation options
- Plausibility check integrated into the system – straight-forward graphic overview of the calculation results (personal protection, heat loss, etc.)
- Basic technical knowledge is all it takes to obtain expert-level results
- Simultaneous calculations in a single step
- Complete report on the results can be sent directly to customers via E-mail
- Runs on all of the standard operating systems and internet browsers
- Available on smartphone and tablet



Technical Skills You Can Count On

State-Of-The-Art Technological Expertise Meets +75 Years of Experience

ROCKASSIST ASIA was developed under the best conceivable professional conditions. After all, the combined skills and technical knowledge of our experts went into this unique calculation program.

This means that we aren't just giving you superficial answers to your questions – we have extensive knowledge of industrial installations. And it means we've put nothing less than our entire store of expertise and practical findings into the specific needs and requirements which are important to you. All of this is reflected in ROCKASSIST ASIA and provides you with the certainty that you can count on all of our expert knowledge in this unique calculation service.

You also benefit from ROCKWOOL Technical Insulation's +75 years of experience which went into ROCKASSIST ASIA as well as our other helpful expert tools. This includes our extensive ProRox Process Manual, which is full of facts on technical insulation. In it, you will find definitive descriptions for every application situation and part of a facility, as well as explanations on how to solve problems.

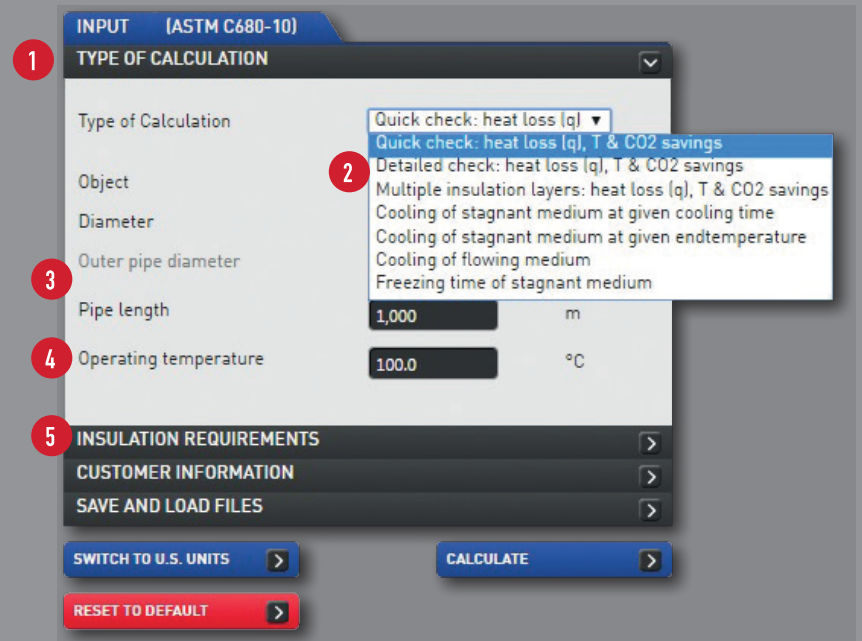
Expert Knowledge for the Ideal Insulation Solution

At temperatures in excess of 600°C in industrial plants, there's no doubt that technical insulation for individual areas of the plant is essential for ensuring personal safety, operational reliability, the economic efficiency of an industrial plant and the protection of the environment. ROCKASSIST ASIA assists you in calculating the ideal insulation solution.

This calculation tool provides you with every method of determining the ideal insulation thickness based on the main parameters, such as surface temperature, ambient temperature, maximum heat loss, etc., and selecting the right ProRox product to achieve the greatest possible degree of efficiency in every respect.



Efficient Calculation - Step by Step



This Is How Easy It Is

ROCKASSIST ASIA is distinguished by its simple, intuitive operation and virtually self-explanatory presentation. Its input panel **1** provides you with seven ways of calculating technical insulation under calculation option **2**.

In particular, its **Quick Check Mode** guides you directly to a recommendation on the insulation to use and the thickness to select. All you have to do is enter a few parameters, such as:

- 3** Shape and dimensioning of the object to be insulated
- 4** Operating temperature of the medium

In the process, the program factors in data such as ambient temperature, wind speed and the type of cladding are given a default value that is common in practice.

The Detailed Check function provides you with the full capabilities of ROCKASSIST ASIA. In it, you can enter the specific object parameters yourself under the heading **5** Insulation Requirements. The technical insulation will then be calculated based on precisely the application situation which you specified.

The advantage: It determines the optimised insulation in terms of insulation thickness and minimal heat loss.

Six additional calculation options are also available for experienced engineers and insulation installers who want to use the program on an in-depth level.

Point A – Required thickness for personal protection (60 mm), corresponding surface temperature 54.4°C

Point B – Required thickness for personal protection (150 mm), corresponding surface temperature 37.85°C

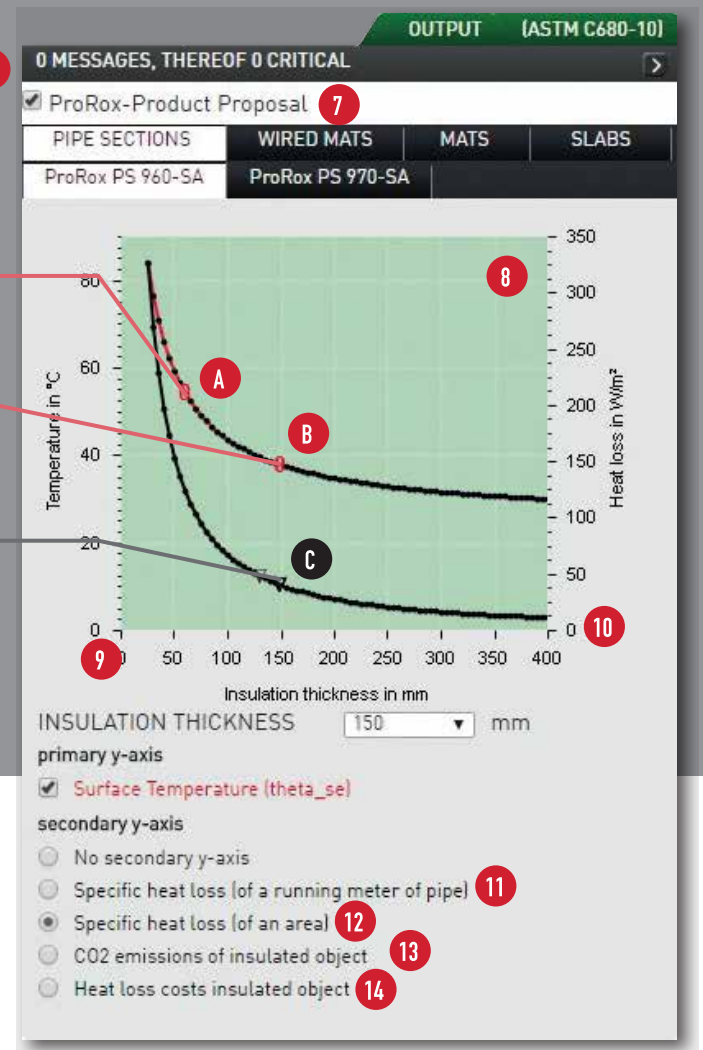
Point C – Required thickness for personal protection and heat loss (150 mm) corresponding heat loss (40.2 W/m²)

Find Solutions at First Glance

The program's output field **6** immediately provides you with a specific product recommendation **7** and a diagram of the results **8**.

The primary y-axis **9** displays the surface temperature. Activating the display options will show the secondary y-axis **10**, which depicts heat losses with insulated pipes in W/m **11**, specific heat losses in W/m² **12**, CO₂ emissions of the insulated objects **13**, and the costs of the heat losses in \$/m or \$/m² **14**. The curve shows the correlation between insulation thickness, surface temperature and heat loss **A B C**.

This makes it easier to identify optimal, cost-effective solutions. Here's one example: A low insulation thickness of



just 60 mm is often enough to meet the maximum surface temperature of 60°C required by accident prevention regulations. The curve also depicts the surface temperatures and heat losses which greater insulation thicknesses will prevent. This means that you can tell at first glance that 150 mm-thick insulation will markedly reduce heat losses at only marginally higher costs.

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| INSULATION SYSTEM | | | | |
|-------------------|--------|-----------------|---------------|---------------|
| Insulation | s [mm] | lambda_b [W/mK] | theta_si [°C] | theta_sa [°C] |
| ProRox PS 960-SA | 150 | 0.0473 | 250.0 | 37.8 |

| RESULTS | | |
|--|-----------|-------|
| INSULATION THICKNESS | 150 | mm |
| PERSONNEL PROTECTION | | |
| Wind speed for surface temperature calculations | 0.00 | m/s |
| Surface Temperature [theta_sa] | 37.8 | °C |
| Outer convective heat transfer coefficient | 2.60 | - |
| Heat transfer coefficient as a result of radiation | 0.32 | - |
| External surface coefficient of heat transfer | 2.93 | - |
| HEAT LOSS / COOLING / ENERGY SAVINGS | | |
| Wind speed for heat loss calculations | 1.00 | m/s |
| Heat loss insulated object | 92.0 | W/m |
| Heat loss insulated object [q] | 40.2 | W/m² |
| Total heat loss of the insulated object [Q] | 458,467 | kWh/a |
| ECONOMIC AND ECOLOGIC | | |
| CO2-Savings | 5,189 | t/a |
| Ratio of CO2-savings | 97.1 | % |
| Heat loss cost savings | 1,525,213 | \$/a |
| Ratio of cost savings | 97.1 | % |

Quick Calculation, Detailed Overview

Below the diagram depiction, you will find the Result table **15**, which shows the insulation system set up and the detailed results, such as insulation thickness, surface temperatures, total heat loss of the insulated object savings on energy (heat loss) costs and CO₂ emission reduction, etc. ROCKASSIST ASIA thus provides you with a complete overview of the data based on the calculation made.

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The screenshot shows a software interface for ROCKASSIST ASIA. It includes a graph at the top right, a 'DESIGN CONDITIONS' section with various input parameters, and a 'RESULTS FOR CHOSEN INSULATION ONLY - MORE RESULTS ON THE NEXT PAGE!' section. A PDF icon is overlaid on the bottom left of the screenshot.

Save, Print and Send Via E-Mail

Last but not least, ROCKASSIST ASIA provides you with perfect data management and transfer service. You can use the program to generate a comprehensive report on the results **16**, which you can save and print, if desired. If you wish, you can even save the report as a PDF file and forward it directly to your customer.

ROCKASSIST ASIA

Want to use it right away?
Nothing could be simpler!



ROCKASSIST ASIA
Training
on request!

All You Have to Do is Sign Up

- 1 Visit our website: www.rockassist-asia.com
- 2 Click on the "Register" button and enter your contact information

And then you're all set to start calculating!



*ROCKASSIST ASIA is now available in English language.

Knowledge from Expert to Expert

ROCKWOOL Technical Insulation certainly won't leave you on your own when it comes to making the best use of ROCKASSIST ASIA. On your request we provide trainings to instruct you on all the details of our expert tool.

Please contact your local representative for more information.

ROCKWOOL IN ASIA

ROXUL ROCKWOOL

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ROCKWOOL® Technical Insulation

ROCKWOOL® Technical Insulation, an internationally active organization within the ROCKWOOL Group, is the worldwide market leader in technical insulation. With our product line, ProRox, we cover the whole process & power generated industries, providing a full range of products and systems for the thermal, acoustical and fire safe insulation of technical installations. Besides sustainable products we offer reliable expert advice, from documentation to delivery and after sales service. Throughout the whole value chain from specifier, through dealer to contractor and installer we aim to create value. We don't just sell products, we supply solutions. It's this total approach that makes us the ideal choice for professionalism, innovation and trust.

All of the information and explanations in this brochure are based on our latest findings and knowledge and are therefore up-to-date. The examples described in this document serve only for illustrative purposes and do not take special circumstances of specific cases into account. ROCKWOOL Technical Insulation places great value upon the continuous further development of its products, to the extent that we constantly work to refine and improve our products without prior notice. We therefore recommend that you use the most recent edition of our publications, as our wealth of experience and knowledge is always growing. Should you require related information for your specific application or have any technical queries, please contact our sales department or visit our website www.rockassist-asia.com



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