RAYPROTEC™
Lead for Shielding Applications

Product Data Sheet

For reference Only

Product : Lead Sheet
Brand : RAYPROTEC

PHYSICAL DATA

Color	Bluish Gray
Atomic Number	82
Weight	709 lb. per cu. ft.
Density	11.35 g. per c.c.
Melting Point	327.4° C /621° F
Specific Gravity	11.36 @ 68' - 77'F

MATERIAL ACCORDANCE

Apart from Commercial grade & Pure grade Rayprotec Lead Sheet can also be supplied to meet or exceed Federal Specification QQL-201 F Grade C, DIN 17640 Part-I and ASTM B 749-L51121, Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products.

PRODUCT DESCRIPTION

HMS Metal Corporation produces Lead Sheet with a consistent and high density manufactured from soft lead and a variety of special alloys upon request. All lead used is subject to routine testing and checking. During production constant in process inspection is carried out to check for any pinholes or cracks cause during production. Upon material ready, inspection for proper size & thickness is done for any possible quality issues. HMS Metal is only interested in providing its customers with the highest quality lead sheet available in the market place today.

Lead Sheet are available in sizes from 1/64" to 1", and are available in rolls and may be supplied flat if required. For thickness over 1", lead plate is available. Since lead plate is difficult to handle, layers of thinner sheets are often used to achieve the same shielding levels.

Our lead sheets are free from dross, oxide inclusions, laminations, scale, blisters or cracks.

Variation in sheet thickness: Not to exceed plus minus 5 percent

LEAD SHEET FOR RADIATION PROTECTION

Lead Sheet is preferred material for medical radiation shielding projects, Nuclear Power Stations and Naval applications. Lead Sheet can be found in applications such as lead lined rooms, doors, frames, mobile shielding screens, static shielding screens and protective clothing to protect medical personnel as well as the general public and the environment from potentially dangerous levels of radiation from x-rays and gamma rays and electron beams . It can also be used to stop radiation leakage from cut-outs and penetrations in lead-lined walls.

Lead and some of its alloys are generally the most cost effective radiation shielding materials to protect against the effects of gamma rays and x-rays. The properties of lead shielding which make it an excellent shielding material are its uniform density, high atomic number, high level of stability, ease of fabrication, high degree of flexibility in application, and its availability at reasonable cost.

LEAD SHEET FOR ACOUSTIC INSULATION

Rayprotec Lead sheet is quite effective as a sound proofing material. Lead sheets provide effect noise absorption, sound & acoustical barriers & enclosures used for boats, office equipment, off-highway vehicles, engine rooms, generators & compressor housings.

Lead has been used for many years as a sound barrier, in industries throughout the world. Properties such as high density, relatively high internal damping and low bending stiffness make lead a popular alternative to traditional materials such as plywood, plasterboard, glass and steel.

Lead also has a much higher coincidence level than these traditional materials, which consequently creates a more effective barrier to the transmission of airborne sound, than most generally used sheet materials within the acoustics industry. When combined, these characteristics make lead the ideal choice for acoustic use.

The density of sheet lead makes it ideal for sound attenuation applications.

LEAD SHEET FOR CORROSIVE PROTECTION

By virtue of its resistance to chemical corrosion, Rayprotec Lead Sheets finds use for the lining & bonding of chemical treatment baths, acid plants and storage vessels/tanks.

Lead is highly appreciated in apparatus construction for the chemical industry and primarily for nonferrous metallurgy, thanks to its special properties such as corrosion resistance to highly aggressive media, high electrical conductivity, great density, good malleability and low melting point, as well as the fact that it is particularly easy to repair. In most cases, lead needs a base or structural material because of its relatively low strength.

Rayprotec can supply varying grades and alloys of lead to provide precise degrees of corrosive resistance demanded by the most stringent design requirements and can be bonded to most products, using either a loose or homogeneous lining method.

The inert nature of lead makes it ideal for lining of chemical tanks and components used in chemical processes particularly where acid exposure is involved.

DELIVERY, HANDLING AND STORAGE

Packing

Each roll of Rayprotec Lead Sheet is wrapped with RAYPROTEC label thick HDPE Plastic sheet to avoid any kind of transit damages.

Safe Handling

Lead is a soft heavy metal. This brings advantages during application but caution must be exercised in handling.

Lift with Proper lifting equipment - seek assistance where necessary.

Safe Storage

Lead is one of the heaviest metals in use in the modern world.

Care must be taken to ensure that if lead sheet is stored above ground level, the means of storage is strong enough to accept the weight of the product.

Irrespective of the method of storage, lead sheet must be kept in a dry environment until the application phase to ensure that no unsightly staining can occur if the storage area is damp.

Surface of Lead Sheet can be scored or damaged if it comes into contact with rough surfaces or sharp objects.

HEALTH & SAFETY

When using lead sheet:

-- Lift with Proper lifting equipment - seek assistance where necessary.
-- Wear the appropriate protective clothing & gloves when handling Lead.
-- Wash your hands and forearms as soon as you finish and before you eat or drink.
-- All rolls of Lead should be stored in a clean dry area and ideally off the floor on a wooden base.
-- Surface of Lead can be scored or damaged if it comes into contact with rough surfaces or sharp objects.

Keep away from food and drink stuff.

DISPOSAL CONSIDERATIONS:

DISPOSAL METHODS: Recover and reclaim or recycle, if practical. Confirm disposal procedures with environmental engineer and local regulations. Treat the disposal of solids as hazardous waste. Dispose of in accordance with Local Authority requirements.

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